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EXECUTIVE COUNCIL
Fortieth Ordinary Session
20 January - 03 February 2022
Addis Ababa, Ethiopia

EX.CL/1312(XL)
Original : English

**REPORT OF THE 3RD ORDINARY SESSION OF THE SPECIALIZED
TECHNICAL COMMITTEE ON TRADE, INDUSTRY AND MINING**

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**Third Ordinary Session of the Specialized Technical Committee on
Trade, Industry and Minerals
Ministers Meeting
3 September 2021
Virtual**

ETIM/STC-TIM/MIN/Rpt.(III)
Original: English

Theme: Deepening economic integration through interconnected and competitive product value chains based on local commodities.

REPORT OF THE MINISTERS MEETING

INTRODUCTION

1. The meeting of Ministers of the African Union (AU) Third Ordinary Session of the Specialized Technical Committee (STC) on Trade, Industry and Minerals was held virtually on 3 September 2021 under the theme “Deepening economic integration through interconnected and competitive product value chains based on local commodities”. The meeting was chaired by H.E. Mr. Abdoulaye Magassouba, the Minister of Mines and Geology, Republic of Guinea.

PARTICIPATION

2. The meeting was attended by representatives of the following Member States: Algeria, Angola, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of Congo, Djibouti, Egypt, Equatorial Guinea, Eritrea, Eswatini, Gabon, Ghana, Guinea, Guinea Bissau, Kenya, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Nigeria, Rwanda, Sao Tome and Principe, Sahrawi Arab Democratic Republic, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Togo, Uganda, Zambia, and Zimbabwe.

3. The following Regional Economic Communities were represented: Common Market for Eastern and Southern Africa (COMESA), and the Economic Community of West African States (ECOWAS),

4. Present at the meeting were the African Economic Development Committee co-Chairs in Washington, USA and the AU Permanent Representative to the USA.

5. Also present were representatives from the African Continental Free Trade Area (AfCFTA) Secretariat, African Association of Automotive Manufacturers (AAAM), African Export Import Bank (Afreximbank), International Islamic Trade Finance Corporation (ITFC), International Trade Centre (ITC), the Pan Africa Quality Infrastructure (PAQI), the Physikalisch Technische Bundesanstalt (PTB) Germany, the United Nations Economic Commission for Africa (UNECA), United Nations Industrial Development Organisation (UNIDO), The African E-trade Group (AeTrade), and technical departments of the African Union Commission (AUC). The full list of participants is attached as Annex 1.

PROCEEDINGS

AGENDA ITEM NO.1 - OPENING OF THE MEETING

6. The Opening Session of the Senior Officials' Meeting was moderated by Mr. Chiza Charles Chiumya, the Acting Director for the Directorate of Industry, Mining and Entrepreneurship at the African Union Commission.

7. Opening remarks were delivered by representatives of Afreximbank, ITFC, ITC, PAQI, UNIDO and the African Union Commission.

Statement by H.E. Prof. Driss Ouauicha Minister of Delegate in charge of Higher Education and Scientific Research of the Kingdom of Morocco

8. The outgoing Chairperson of the STC welcomed all delegates and thanked the participants for attending the meeting. He thanked the AUC for their support during Morocco's tenure as Chairperson of the STC. He appreciated that progress had been made leading to the finalisation of the Africa Commodity Strategy, the Africa Quality Policy and the Study on Financing Industrialisation in Africa. He noted that the AfCFTA provided an opportunity to boost intra-Africa trade at macro level and the development of regional value chains. The Minister further indicated that the AfCFTA would promote industrialisation in Automotive, Oil and Gas, Cotton and Textiles, Electronics, Plastics and Food products. He wished his successor best wishes in their tenure. He extended his gratitude to the African Union Commission for organising the 3rd Ordinary Session of the STC-TIM.

Statement by Prof. Benedict Oramah, President and Chairman of the Africa Export Import Bank (Afreximbank)

9. Speaking on behalf of Prof. Benedict Oramah, President and Chairman of the board of directors of the African Export Import Bank (Afreximbank), the Afreximbank delegate informed the meeting that Afreximbank is a committed supporter of the continent's industrialization and Intra Africa trade agenda. Among others, the Bank has ongoing support for the AfCFTA with initiatives such as the AfCFTA Adjustment Fund which has initial resources estimated at \$7.7 billion; and the Pan African Payment and Settlement System (PAPSS). The Bank is also undertaking a number of key activities in promoting the continent's industrial sector and has collaborated with ARSO and other PAQI institutions, in the development of the Africa Quality Policy. The Bank is also currently working with the African Association of Automotive Manufacturers (AAAM), the AfCFTA Secretariat, AUC and UNECA to implement a number of activities to support the development of a robust African automotive industry. Finally, the speaker reminded the meeting that in collaboration with the African Union, the AfCFTA Secretariat and the Government of the Republic of South Africa, Afreximbank will host the second edition of the Intra-African Trade Fair (IATF2021) in Durban, KwaZulu-Natal, South Africa from 15 to 21 November 2021 under the theme "Building Bridges for a successful African Continental Free Trade Area (AfCFTA)". The fair offers an unparalleled opportunity to showcase Africa's potential and create opportunities for trade and investment. Everybody was invited to participate in IATF2021.

Statement by Mr. Nazeem Noordali, Chief Operations Officer of the International Islamic Trade Finance Corporation (ITFC)

10. The representative of the ITFC Mr. Nazeem Noordali, by giving a short history of the formation of the ITFC, which was established as an autonomous entity within the Islamic Development Bank (IsDB) Group with the primary objective of advancing trade among Organization of the Islamic Cooperation (OIC) Member Countries, 27 of which are in Africa. Since its inception in 2008, the ITFC has charted an admirable pathway and contributed its quota to the global Trade Finance and Trade Development landscape. The Arab Africa Trade Bridges Program (AATB) is one of the flagship projects of the ITFC, created to increase economic integration and support sustainable growth across Arab and African countries. It is a partnership between Governments and Multilateral Development Institutions that promotes and facilitates trade & investment and focuses on sectors and industries, in which member states desire to attract greater investment and ensure knowledge diffusion.

11. As of today, AATB membership is made of 8 African countries and 6 Multilateral Institutions, including the Afreximbank and Arab Bank for Economic Development in Africa (BADEA). ITFC's recent research has shown that the AfCFTA promises sectorial specialization at country level with significant transformation in production structure, offering the potential to establish regional value chains, and an opportunity for governments to engage in skill enhancement and invest in productive capacities. ITFC's presentation to the senior officials on the 1st of September as well as these remarks in front of you today will offer opportunities for 1) prospective membership in the ambitious AATB Program, and 2) strengthening inter and intra-regional cooperation between Arab and African countries.

Statement by Ms. Dorothy Tembo, Deputy Director General of the International Trade Centre (ITC),

12. Speaking on behalf of the ITCs Deputy Executive Director, Ms. Dorothy Tembo, the representative noted that the meeting is bringing together Partners, Agencies and Governments to continue to working together with the African Union to implement appropriate strategies for impact with focus on regional integration, industrialization and value chain competitiveness. This will be achieved through focusing on market led productive capacities, stakeholder and investment partnerships and most importantly with focus on inclusive and sustainable transformation, value addition and value chains. The AfCFTA is a blueprint for facilitating a process of structural transformation. With aims of boosting intra African trade to 52.3% and increasing regional income by 7% or \$ 450 billion by 2035 the AfCFTA is at the same time 1) an insurance policy against future crisis or disruptions – such as CIVID 19, but most importantly, 2) the means to build resilience from within the continent.

13. It is the AfCFTA process that can reimagine industrialization for the continent. This will mean addressing the digital penetration gap, focusing on the national and continental business ecosystem, and placing a particular accent on building value addition and

supporting greater value retention and values based value chains on the continent. Made in Africa must also mean 'Buy in Africa'. There are five signposts that are crucial to supporting an African Industrialization Strategy for the post pandemic recovery period. One that places diagnostics, MSMEs, women and youth, green recovery and value addition at the center of its focus. The AfCFTA is the vehicle to promote this process. The AfCFTA represents a monumental step towards realizing Africa's full potential. It provides a foundation to transform the continent to greater self-sufficiency. And ITC, including through its new "ONE TRADE AFRICA" programme will be there to support the process. The African Trade Observatory (ATO) is another tool which we are working on, and which supports as well the operationalization of the AfCFTA.

Statement by Dr. Celestine Okanya, Chairperson of the Pan Africa Quality Infrastructure (PAQI) Joint Committee

14. Addressing the meeting, the PAQI JC Chairperson, Dr. Celestine Okanya, commended the Ministers for a successful STC meeting and consideration of very important developmental issues. He noted that one of the instruments that had been presented for Ministers' consideration was the Draft Africa Quality Policy. Indeed, many African Quality Infrastructure professionals felt that this development was long overdue as evidenced by the overwhelming support for and involvement in the development process of the quality policy by African Union Member States. The PAQI Chairperson informed the meeting that a comprehensive continental quality policy is necessary in order to address the Quality Infrastructure support requirements of Africa's industrialization, trade, and safeguarding of the health and safety of consumers as well as protection of the environment. Standards and Quality play a key role in the successful implementation of Agenda 2063 programmes and sustainability of the entire regional integration process. The PAQI Chairperson assured Ministers that the PAQI institutions would work closely with all relevant stakeholders and in particular with the AUC and AfCFTA Secretariat in implementing the policy and a report on progress would be given to the STC-TIM at their meetings.

Statement by Mr. Li Yong, Director General of the United Nations Industrial Development Organisation (UNIDO)

15. In order to pursue the road towards further economic integration and regional value chain development, UNIDO believes that there is a need for Africa to, amongst others, accelerate the diversification of its productive sector, particularly in the development of intra-regional value chains; organize production along its regional value chains to bring about spillover effects such as the reduction of environmental costs; accelerate solutions to enhance the continent's economic resilience through its regional integration efforts. In this regard, the AUC, UNIDO and other partners have initiated a collaborative study on the mapping of regional value chains. It is hoped that the findings from this study will contribute to the development of a robust evidence-based Pan-African regional value chain strategy. UNIDO continues to stand ready to support the AUC through the STC-TIM, as well as in the implementation of the Action Plan for the Accelerated Industrial Development of Africa

(AIDA). With regards to AIDA, there is commitment supporting the AUC through UNIDO's assistance in the continuous functioning of AIDA's Implementation Coordination Unit.

Statement by Ambassador Albert Muchanga, African Union Commissioner for Economic development, Trade, Industry and Mining

16. In his remarks, H.E. Commissioner Muchanga observed that the meeting was taking place in at a critical moment of history in which Africa had to accelerate its progress towards productive transformation, despite the Covid 19 Pandemic so as to reduce her dependence on importation of manufactured goods. He therefore hailed the choice of the theme of the Meeting as timely. He emphasized the need to for the continent to utilize its regional and continental integration efforts to develop and strengthen value chains using its abundant natural resources.

17. He then lamented the slow progress of Africa's industrialization, despite the adoption of the plan of Action for the Accelerated Industrial Development of AIDA in 2008, based on the continents low share in global exports of manufactured goods. He indicated that this points to the urgent need to devise a robust plan to promote value chain integration in various economic sectors including in Agriculture, where Africa imports are huge. He therefore urged the ministers to adopt the various policy instruments before them, including the Draft AU Commodity strategy, to ensure that the continent is put on a path of steady and sustainable industrialization.

18. He concluded his remarks by urging the Ministers to attend policy meetings such the STC so as to provide policy guidance to the work of the African Union Commission. He further reminded the Ministers of forth coming engagements including on the WTO, AGOA and the Summit on Industrialization and economic diversification in which their participation would be crucial in shaping the future of the continental policies related to trade, industry and Mining.

AGENDA ITEM NO. 2 - ELECTION OF THE BUREAU

19. With respect to elections for the new bureau, West and Central Africa regions submitted their nominations. The other regions indicated that consultations were still underway. In this regard the current composition of the Bureau is as follows:

Chair	: Outstanding (Southern Africa)
1st Vice Chair	: Equatorial Guinea (Central Africa)
2nd Vice Chair	: Outstanding (East Africa)
3rd Vice Chair	: Guinea (West Africa)
Rapporteur	: Outstanding (North Africa)

AGENDA ITEM NO.3 - ADOPTION OF THE DRAFT AGENDA AND PROGRAMME OF WORK)

20. The meeting adopted the agenda of the meeting as follows: *(to change accordingly if the agenda is amended)*

1. Opening of the Meeting,
2. Election of the Bureau,
3. Adoption of the Agenda and Programme of Work,
4. Panel discussion on the theme of the meeting,
5. Consideration of the Report of the Senior Officials,
6. Consideration and adoption of the Report of the Ministers and the Ministerial Declaration of the 3rd Ordinary Session of the STC-TIM,
7. Any other business,
8. Closure.

AGENDA ITEM NO.4 - PANEL DISCUSSION ON THE THEME OF THE STC-TIM MEETING

21. The African Union Commission organized a webinar on the theme of the 3rd STC-TIM. The panel was composed of H.E. M. Hughes Mbadinga Madiya, Minister of Trade, Small and Medium Sized Enterprises and Industry, Gabon, Mr. Khalil Sherif, Vice Presidency, Regional Development, Integration, and Business Delivery, AfDB and Mrs. Ragnheiður Elín Árnadóttir, Director OECD Development Center.

22. The African Union Commission gave a presentation on “Industrializing Africa through sustainable regional value chains under the AfCFTA”. The presentation underlined policy actions in support of regional value chains: (i) removing structural constraints to industrialization through investments in infrastructure, energy, digitalization and skills; (ii) deepening regional integration to realize the AfCFTA potential, (iii) strengthening the role of the private sector and, (iv) financing Africa’s industrialization. Following the presentation, panelists shared their views as follows:

- a) H.E. M. Hughes Mbadinga Madiya, shared the experience of Gabon with regards to the wood industry value chain and noted the importance of the sector as a lever of growth and jobs creation. He elaborated on the policy action that can strengthen wood industry regional value chains. Policy actions include building a continental business environment conducive to private companies, up skilling the labour force, developing infrastructure and investing in technology. He highlighted national efforts in support of value chains creation in various sectors including agriculture and industry and noted the importance of a legal environment.
- b) Mr. Khalil Sherif, Vice President underlined the need for African Union Member States to accelerate progress towards strong and inclusive growth aimed at equipping people

with the necessary financial resources to increase their purchasing power. He highlighted the importance of acceleration structural transformation in Africa and alluded to the role played by the African Development Bank in financing investments in critical sectors.

- c) Mrs. Ragnheiður Elín Árnadóttir commended the cooperation framework between the African Union Commission and the OECD Development Center that deepens international co-operation on the Pan-African agenda for productive transformation and regional integration.

23. The discussion underlined 3 focus areas for developing Africa's value chains: reducing trade costs to support regional production networks, ensuring shared and sustainable gains from African value chains and building regional competitiveness in strategic value chains. Panelists also underscored the need for strengthened international cooperation in support the development of sustainable regional value chains.

AGENDA ITEM 5 - CONSIDERATION OF THE REPORT OF THE SENIOR OFFICIALS

24. The African Union Commission presented the report of the Senior Officials to the Ministers. The Ministers took note of the report and commended the work they had done. After presentation of the report, Ministers adopted the recommendations of the Senior Officials with some amendments as follows: -

A. UPDATE ON THE ACHIEVEMENTS AND PROGRESS MADE ON THE FILES OF TRADE, INDUSTRY AND MINING SINCE THE SECOND STC-TIM

25. Ministers urged the African Union Commission to fast-track the implementation of Decision on Institutional Reform No. Ext/Assembly/AU/Dec.1-4(XI) of November 2018;

26. That the STC-TIM amends its Rules of Procedure to include the new portfolios on Tourism, Oil and Gas.

B. ON THE DRAFT AFRICAN UNION COMMODITY STRATEGY AND ACTION PLAN

27. Adopted the Draft African Commodity Strategy and Action Plan;

28. Recommended that a Champion be appointed with no additional costs to the Member States to give political support for implementation of the Draft African Commodity Strategy and Action Plan; and

29. Requested inclusion of all relevant stakeholders during implementation of the Strategy.

C. ON THE DRAFT AFRICA QUALITY POLICY – AQP

30. Adopted the Africa Quality Policy and directed the African Union Commission to address the amendments highlighted in the meeting.

D. ON THE AFRICA MINERALS DEVELOPMENT CENTRE (AMDC) BUSINESS PLAN

31. Ministers as interim caretaker of the AMDC, adopted the Business Plan in order to facilitate the operationalization of the AMDC;

32. Urged Member States to expedite the ratification of the AMDC Statute.

E. ON THE AFRICAN MINERALS AND ENERGY RESOURCES CLASSIFICATION AND MANAGEMENT SYSTEM - AMREC

33. Adopted the African Minerals and Energy Resources Classification Framework and Management System and the Pan African Reporting Code (AMREC-PARC) in order to facilitate implementation of the African Mining Vision (AMV).

F. ON THE DRAFT AFRICAN FASHION INDUSTRY VALUE CHAIN AND PAN AFRICAN FASHION INITIATIVE STRATEGY

34. That more time be given for consultations with stakeholders at national level and regional level before presenting the strategy to the next STC.

G. ON THE STUDY ON FINANCING INDUSTRIALISATION

35. Took note of the report and propose that it be presented to Ministers responsible for Finance.

H. ON THE UPCOMING SUMMIT ON INDUSTRIALIZATION AND ECONOMIC DIVERSIFICATION – 2021

36. That the African Union Commission, AU Member States, RECs, and partners support the Summit on Africa Industrialization and Economic Diversification taking place in November 2021, in Niamey, Niger.

I. ON THE AFRICAN ASSOCIATION OF AUTOMOTIVE MANUFACTURERS (AAAM)'S PAN AFRICAN AUTO VISION

37. Encourage the AAAM to work with other stakeholders in developing an automotive sector strategy so as to take advantage of the AfCFTA market.

J. ON THE UPDATE ON PROGRESS MADE ON IDDA-III BY UNIDO

38. Noted the progress made on the IDDA-III

K. ON THE AFRICA GROWTH OPPORTUNITY ACT

39. Her Excellency Ambassador Hilda Suka-Mafudze gave an update on the state of play and outlook on AGOA with respect to the forthcoming engagements between Africa and the United States Administration, notably the AGOA Mid-Term Review scheduled for 8-9 September 2021, and the Ministerial Engagement of AGOA Eligible countries with the US Trade Representative. In her intervention, she emphasised that AGOA remains one of the most important programs that define U.S.-Sub-Sahara Africa relations, and is considered the corner stone of the U.S economic engagement in Africa. The African Diplomatic Corps strongly believes that all the stars are aligned today to take U.S-Africa Relations to a higher and strategic level of engagement for the best interest of both sides. We have an important opportunity to revitalize our economic cooperation with the United States and we need to seize as a continent this opportunity to maximize the utilization of AGOA before it expires in 2025 and shape and influence the appropriate trade arrangement that would govern Africa-US trade and investments relations.

40. She highlighted that political guidance of the STC and the necessary technical support from African continental organizations, at this particular juncture, with four years before the expiration of AGOA, will be critical in Africa's advocacy efforts with the key U.S stakeholders.

41. Ambassador Carlos dos Santos, Co-Chair of the Economic Development Committee of the African Diplomatic Corps in Washington, DC, shared with the meeting the part they were playing to promote and boost trade with a strategic partner, the United States, at a time when the new Administration sought to strengthen and broaden the relations with the African Continent. The flagship program in the trade relations between Africa and the United States has been the Africa Growth and Opportunity Act (AGOA) which was due to end in 2025. The African Diplomatic Corps in the United States were engaging with the relevant US State Departments and Congress to negotiate post AGOA arrangements that benefit African countries more. He indicated that most AGOA eligible countries were in a much better position to benefit from AGOA now than they were in 2000. The African Diplomatic Corps in Washington continue to coordinate their actions and to speak with one voice to argue that AGOA is a good instrument to boost trade and investment, and benefit not only the African countries but the United States as well.

42. The Ambassador reiterated that this is the right time to engage the US Administration as it seeks to conclude the formulation of its trade policy with Africa with a mind-set of partnership and mutual respect. The initiatives of the US Government include Prosper Africa, which seeks to bring coherence to the 16 US Agencies that deal with development cooperation, investment and trade. Our dialogue can be more productive and fruitful if we

articulate our collective vision and strategies in a more coherent fashion, ensuring that all Members States of the African Union are on board.

L. FOLLOWING THESE TWO INTERVENTIONS ON AGOA, MINISTERS THEREFORE RECOMMEND AS FOLLOWS:

43. Directed the AU Commission in collaboration with the African Development Bank (AfDB) and the United Nations Commission for Africa (UNECA) to undertake an assessment of the impact of AGOA on eligible countries and how it has benefitted both sides and prepare for post AGOA engagements with the U.S.

44. Called for re-authorisation, extension and improvement of AGOA requested technical support for AGOA eligible Member States in the utilization of AGOA preferences.

45. Agreed to have a dedicated session to develop common approaches before the planned engagement with the US Trade Representative in October 2021.

M. ON THE WTO 12TH MINISTERIAL CONFERENCE PREPARATIONS

46. Ministers agreed to have a dedicated session to adopt common African positions on issues to be deliberated on during the conference

N. ON THE ROLE OF LOGISTICS ON BOOSTING INTRA AFRICA TRADE AND THE AfCFTA

47. Urge the AfCFTA Secretariat, RECs and other concerned development partners to undertake a comprehensive study on establishing sub regional logistics centres to serve the objectives AfCFTA and the goals of our economic integration.

O. ON THE REPORT ON THE AU CONTINENTAL GUIDELINES ON TRADE FACILITATION UNDER THE COVID 19 PANDEMIC

48. Encouraged Member States to implement the relevant measures of the *AU Continental Guidelines Continental Guidelines on Trade and Transport Facilitation for the Movement of Persons, Goods and Services across Africa during the Covid-19 Pandemic* to the extent possible;

49. Requested AUC and ECA to continue to guide and support AU Member States to implement the guidelines

P. ON THE SENSITIZATION ON THE ARAB-AFRICA TRADE BRIDGES PROGRAM

50. Noted the developments taking place under the Arab-Africa Trade Bridges program

AGENDA ITEM NO.6 - CONSIDERATION AND ADOPTION OF THE REPORT OF THE MINISTERS AND THE MINISTERIAL DECLARATION OF THE 3RD STC-TIM

51. The Ministers adopted their meeting Declaration.

AGENDA ITEM NO.7 - ANY OTHER BUSINESS

52. The Algerian delegation thanked the effort and the content of the report presented by the STC. They took the opportunity to declare their full support for the policies and projects of the Africa Union. They reiterated Algeria's commitment to participating in Africa Union events to ensure its engagement with the AUC.

53. With respect to the issue of outstanding Bureau nominations, a representative of the AU Office of Legal Counsel informed the meeting that the regions that were still to indicate their nominations would do so by way of a Note Verbale to the African Union Commission.

AGENDA ITEM NO. 8 - CLOSING

54. In his closing remarks, H.E. Ambassador Muchanga, AU Commissioner for Economic development, Trade, Industry and Mining (ETIM) urged Ministers to attend STC meetings. He also indicated that the African Union Commission would be facilitating preparatory meetings for AGOA and MC12 on dates to be announced. He also thanked the Chairperson and the Ministers for their participation in the 3rd Ordinary Session of the STC-TIM.

55. In his closing remarks, H.E. Mr Abdoulaye Magassouba, Chairperson of the meeting, thanked all delegates for their participation and wished them well. He urged the Members to expedite ratification of the statute for the establishment of the Africa Mining Development Centre noting that so far only 11 countries had signed the statute and 3 had ratified.

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Annex 1

AFRICAN UNION COMMODITY STRATEGY

Preface

The African Union (AU) adopted Agenda 2063 in 2013 and its First Ten-Year Implementation Plan comprising 14 of Flagship Projects. Among these projects is the resolve to develop a Commodity Strategy that leverages on the continent's commodities for an integrated, prosperous and peaceful Africa.

The need for a pro-active AU Commodity Strategy cannot be overemphasised. The 2015 Report of the High-Level Panel on Illicit Financial Flows from Africa, chaired by former President Thabo Mbeki, showed that Africa loses approximately US\$80 billion annually through illicit financial outflows, which by far exceed the overseas development assistance that it gets. The report also revealed that 60% of these losses occurred in the extractive sector. In addition, the majority of our countries continue to depend on commodities, thereby being perpetually exposed to the vulnerabilities of the sector. This alone shows that, if Africa can effectively manage its commodities, they can be a reliable source of economic growth and development.

Advances in technology along the commodity value chains, together with the relevant Research and Development, offer opportunities for Africa to strengthen its regional value chains, so as to leapfrog its participation in the global value chains. This demands our collective will to invest in strategic actions in order to establish a competitive foothold in the global value chains.

Our commitment to industrialise by adding value to our commodities, as well as addressing commodity price volatility, needs to be accompanied by sustained political will at the highest level. Our continent has not been short of strategies, it is in their implementation that we have faced challenges. We all need to ensure that the implementation of the AU Commodity Strategy here proposed is prioritised. Let us ensure that we provide adequate resources for this to happen.

The Africa we aspire to, the Africa we want, is attainable.

H.E. Albert Muchanga

Commissioner for Economic Development, Trade, Industry and Mining

Executive Summary

Africa is well endowed with resources in the agriculture, mining and energy sectors. However, the abundance of such resources in most countries has not translated into structural transformation, inclusive and sustainable development. This situation is partly due to price volatility and other external shocks in commodities markets, as well as to limited value addition, which exposes countries to high macroeconomic instability. Recognising these challenges and the critical need to address them, the AU prioritised the AU Commodity Strategy as one of the 14 Flagship Projects of the AU's Agenda 2063 and in the First Ten-Year Implementation Plan .

Pursuant to the January 2015 Assembly Decision [**Assembly/AU/Dec.565 (XXIV)**] , a series of consultations with relevant stakeholders was undertaken to develop this African Union Commodity Strategy. It comprises seven chapters: (i) Introduction; (ii) Situational Analysis; (iii) The Strategy; (iv) Enablers for Strategy Implementation; (v) Implementation, Monitoring and Evaluation Framework; (vi) Resource Mobilisation, Financing and Partnership Arrangements; and (vii) Communicating the Strategy.

The Strategy addresses challenges identified in the three main commodities sectors, namely (i) Agriculture; (ii) Mining, and (iii) Energy. Four 'Strategic Pillars' are identified to guide the optimal use of African commodities so as to achieve sustainable industrialisation, economic diversification, structural transformation, development and enhanced trade.

The first Pillar covers commodity markets and pricing, and addresses the following strategic issues: financial and capital markets; competitive environment; commodity exchanges and price volatility; and producer power. The second Pillar is about linkages and diversification, focusing on the management and sustainable use of natural resources; regional value chains development; infrastructure development; and Quality Infrastructure Systems (QIS) development. The third Pillar deals with governance and the provision of an enabling environment, taking into consideration legal and regulatory policy, as well as human rights issues. The fourth Pillar focuses on skills development and research and development (R&D) with emphasis on skilled labour; entrepreneurship, technology and innovation.

This Strategy also proposes institutional arrangements and identifies strategic entities that are expected to play a critical role in its implementation.

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List of Acronyms

AAIN:	African Angel Investors' Network
AfCFTA:	African Continental Free Trade Area
AfDB:	African Development Bank
AIF:	African Integration Fund
AFREXIMBANK:	African Import Export Bank
AIDA:	Accelerated Industrial Development for Africa
ALLPI:	Africa Leather and Leather Products Institute
AMV:	Africa Mining Vision
APRM:	African Peer Review Mechanism
ASM:	Artisanal and Small-Scale Mining
AU:	African Union
AUC:	African Union Commission
BEPS	Base Erosion and Profit Shifting
BIAT:	Boosting Intra-African Trade
BOP	Balance of payments
BPD:	Barrels per day
CAADP:	Comprehensive Africa Agriculture Development Programme
CE:	Centre of Excellence
CET:	Common External Tariff
CFC:	Common Fund for Commodities
CTRM:	Commodity Trading and Risk Management
DTI:	Department of Trade and Industry
E & T:	Education and Training
FDI:	Foreign Direct Investment
FTYIP:	First Ten-Year Implementation Plan
HRD:	Human Resources Development
IACO:	Inter African Coffee Organisation
IBAR:	Inter-African Bureau for Animal Resources
ICCO:	International Cocoa Organisation
ICT:	Information and Communication Technologies
IFF:	Illicit Financial Flow
IMF:	International Monetary Fund
IPSAS:	International Public Sector Accounting Standards
ITC:	International Trade Centre
M&E	Monitoring and Evaluation
MRA:	Mutual Recognition Arrangement
MSME:	Micro-, small, and medium enterprises
NEPAD:	New Partnership for Africa's Development
NTBs:	Non-Tariff Barriers
OECD:	Organization for Economic and Co-operative Development
OPEC:	Organisation of Petroleum Exporting Countries
PAQI:	Pan African Quality Infrastructure
PHL:	Post-Harvest Loss
PIDA:	Programme for Infrastructure Development in Africa
PPP:	Public-private partnerships

QIS:	Quality Infrastructure Systems
RBM:	Results Based Management
RECs:	Regional Economic Communities
R&D:	Research & Development
RMV:	Regional Mining Vision
SADC:	Southern Africa Development Community
SAFGRAD:	Semi-Arid Food Grains Research and Development
SMEs:	Small and Medium Enterprises
SPS:	Sanitary and Phytosanitary Standards
STC:	Specialised Technical Committee
STEM:	Science, Technology, Engineering and Mathematics
SWF:	Sovereign Wealth Fund
TBT:	Technical Barriers to Trade
TRIMs:	Trade-Related Investment Measures
TVET:	Technical and Vocational Education Training
VCF	Venture Capital Fund
WTO:	World Trade Organisation

Chapter 1: Introduction

1. Africa is well endowed with resources in the agriculture, energy and minerals sectors. The continent has 60% of global arable land as yet to be cultivated¹, 42% of gold, 80-90% of the chromium and platinum group of metals and 8% of the world's oil reserves. Africa benefited from the commodity boom of the early 2000, which translated into the continent's unprecedented growth that was only disturbed by the onset of the global financial crisis of 2008. Whilst the continent was able to recover from this global shock by 2010 and rebound with a strong growth rate of 4.6 per cent, the boom did not translate into commensurate economic diversification that would have led to faster and inclusive socio-economic development for the African people.

2. The recognition of the challenges and opportunities embodied in Africa's commodity wealth has been linked to different AU decisions, namely the 2005 Arusha Declaration on African Commodities and other frameworks such as the 2003 Comprehensive Africa Agriculture Development Programme (CAADP) and its 2014 Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods, the 2008 Accelerated Industrial Development for Africa (AIDA), the 2009 African Mining Vision (AMV), 2012 African Continental Free Trade Area (AfCFTA), 2011 Programme for Infrastructure Development in Africa (PIDA) and the 2013 AU's Agenda 2063. However, the recent commodity boom and the challenges arising from the drop in commodity prices have necessitated a holistic rethinking and fresh approach to the question of how the wealth generated by African commodities can be leveraged to drive the continent's development. This was substantially addressed for mineral commodities (comprising around 85% of Africa's commodity exports: **Error! Reference source not found., Error! Reference source not found.**) in the AU's 2009 Africa Mining Vision (AMV²), which emphasised diversification through the development of all of the commodity linkages .

¹ <https://www.weforum.org/agenda/2016/01/how-africa-can-feed-the-world/>

² *The Africa Mining Vision*, Addis Ababa

Table 1: Africa's Commodity Trade 2018 (USD millions)

(USD millions)	Africa Exports	Commodity Group % of Exports	Africa Imports	Commodity Group % of Imports	Commodity Group Imports Exports	Trade Balance	Intra-African Trade	Commodity Group % Intra-Africa Trade	Group Intra-African Trade % Exports
Commodity Group	Total 2018 USD M	% 2018	Total 2018 USD M	% 2018	% 2018		Total 2018 USD M	% 2018	% 2018
Agricultural Commodities	56 327	15%	68 780	35%	122%	-12 453	9 599	26%	17%
Agricultural Raw Materials	9 341	2%	2 947	1%	32%	6 395	781	2%	8%
Food & Beverages	38 334	10%	49 897	25%	130%	-11 563	6 317	17%	16%
Animal Products	8 651	2%	15 936	8%	184%	-7 285	2 501	7%	29%
Mineral Commodities	324 717	85%	129 168	65%	40%	195 550	27 463	74%	8%
Metals-Minerals (ex precious)	47 216	12%	8 357	4%	18%	38 859	3 330	9%	7%
Precious Metals & Stones	52 386	14%	4 247	2%	8%	48 139	1 995	5%	4%
Industrial Minerals & Polymers	6 106	2%	17 641	9%	289%	-11 535	2 389	6%	39%
Fertiliser Minerals	6 390	2%	3 850	2%	60%	2 540	1 405	4%	22%
Energy Minerals	212 619	56%	95 072	48%	45%	117 547	18 344	49%	9%
Total Commodities	381 044	100%	197 947	100%	52%	183 097	37 062	100%	10%
All Products (exports, imports & intra-Africa trade)	USD 497 267	million	USD 573 529	million			USD 69 383	million	
Commodities: % Africa Total	77%		35%				53%		
Agricultural Commod: % Africa Total	11%		12%				14%		
Mineral Commodities % Africa Total	65%		23%				40%		

Source: Calculations based on ITC Trade Map database (1)

3. Africa's vulnerability to external shocks, partly due to its dependency on the export of raw commodities, particularly mineral commodities³, is a continuous cause for worry. Commodity price volatility and declining terms of trade continue to be core features of international commodity markets, and this creates challenges for effective macroeconomic management and exposes most member countries to greater balance of payments uncertainty. In addition, agricultural subsidies in developed countries aggravate this situation by depressing global agro-commodity prices and Africa's forex receipts.

4. In this regard, one of the flagship projects under the AU's Agenda 2063 is the formulation of an AU Commodity Strategy for the continent. This Strategy lays out a vision for commodity-led industrialisation, namely: "*Commodities contributing to an integrated, prosperous and peaceful Africa, driven by its own citizens and representing a dynamic force in the international arena*". It seeks, among other benefits, to enable African countries to , add greater value, extract higher rents from their commodities, integrate into African value chains, and promote vertical and horizontal diversification and local content development that recognises inputs from the whole continent.

5. The overall goal of the AU Commodity Strategy is to ensure that Africa's commodities are leveraged to drive its growth, development and industrialisation agendas. The AU Commodity Strategy seeks to establish regional value chains of strategic commodities to satisfy Africa's needs and that can be efficiently moved up the global value chains. In addition, the Strategy proposes recommendations for creating dynamic mechanisms aimed at minimising the negative impact of commodity price

³ In 2018 minerals comprised 85% of Africa's commodity exports of almost \$200bn and energy minerals constituted over half the total (Error! Reference source not found.).

volatility, ensuring fair prices through the utilisation of Africa's wealth of natural resources and competitive advantage in many commodity markets.

6. The Strategy will encourage diversification anchored in commodity value chain realisation, through value addition, regional and local content development, skills and technology development and extracting equitable rents from commodities. This also includes deepening regional commodity value chain markets and facilitating commodity value chain trade, as espoused in AU's strategies and decisions.

7. The Strategy is structured into seven chapters: (i) Introduction; (ii) Situational Analysis; (iii) The Strategy; (iv) Enablers for Strategy Implementation; (v) Implementation, Monitoring & Evaluation Framework; (vi) Resource Mobilisation, Financing and Partnerships Arrangements; and (vii) Communicating the Strategy.

8. The action plan forms an integral part of this Strategy. It provides a general framework for the implementation of the strategy by explaining strategic actions at the national, regional and continental levels. It also highlights the set of expected results, monitoring and evaluation and resource mobilization. It also provides information on ongoing initiatives at the continental level associated with strategic actions.

Chapter 2: Situational Analysis

9. In the last two decades, the African continent witnessed progress in governance and social economic development. However, more is yet to be achieved. This chapter speaks to challenges to be confronted, as well as opportunities to be exploited in the context of commodities.

10. Given the vast endowments for commodities in Africa, it is important to analyse the internal and external environment in which they are being produced and utilised, with reference to their contribution, challenges and opportunities. This chapter, therefore, gives a situational analysis of the agriculture, energy and mineral commodities sectors.

11. Commodities made up the bulk of Africa's exports, at 77% from 2001 to 2018. Over the same period the mineral commodities comprised 67% of exports and agricultural commodities only 10%, whilst energy minerals alone accounted for nearly half (48%) of the exports (7). Commodity exports from 2011 to 2018, comprised of 87% minerals, and 13% agricultural. However, over the same period Africa was a net importer of agricultural commodities with a trade deficit of 23%⁴.

Agricultural Commodities

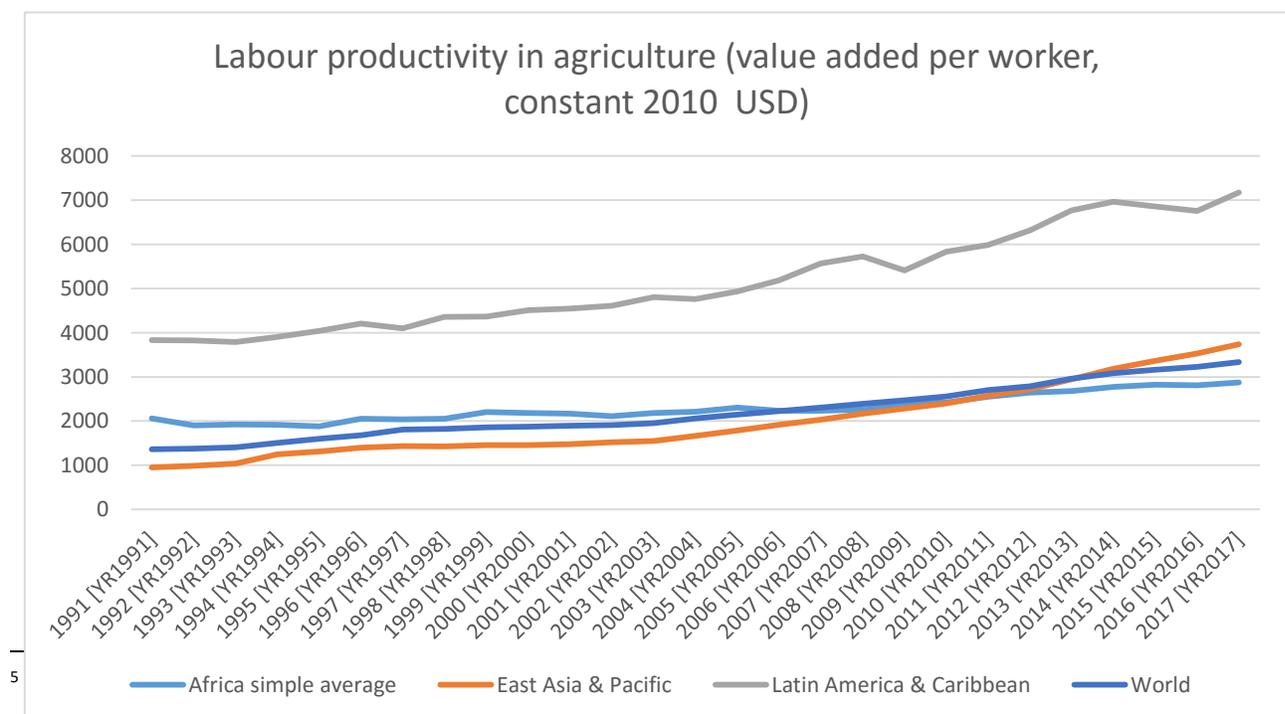
12. Agriculture is defined broadly to encompass the crops, livestock, fisheries and forestry subsectors, and is key to broad-based and inclusive economic growth, enterprise development and employment creation, food and nutrition security and poverty eradication in Africa. Most African livelihoods are directly based on agriculture, and agricultural commodities are important for revenue generation and export receipts in

⁴ ITC Trade Map database.

many African countries, also for the value chain actors who depend on these commodities for markets or feedstocks and employment. Indeed, internationally-traded agricultural commodities in which Africa is an exporter, such as coffee, cocoa and cotton are, directly or indirectly, major sources of employment and income for hundreds of millions of people. Through taxation and redistribution, they make major contributions to the provision of basic services. Hence, wide fluctuations in export earnings from these commodities significantly affect the overall economies of countries' dependent on the agricultural commodities. Equally, strategic agricultural commodities such as rice, maize and sorghum are important for food security in Africa. Failure to promote increased production and productivity, value addition and trade of these strategic commodities could lead to political instability, both at national , regional, and continental levels.

13. The contribution of agriculture to Gross Domestic Product (GDP) in Africa has continued to deteriorate in past years. Across the continent, the share of agriculture value addition in GDP dipped from almost 23% in the early 1970s to less than 17% in the last decade. This share averages 27.4% in East Africa, 12% in Central Africa, 15% in North Africa, 22% in West Africa and 3% in Southern Africa⁵ . The decline of agriculture's value addition share in the GDP has not been accompanied by a rise in manufacturing. Instead, the share of value added by manufacturing in GDP has also been falling, while low-value informal services have been on the rise. The classic path to structural transformation seems to be elusive in Africa.

14. Despite its importance in terms of jobs creation, the share of agriculture in context of wealth creation remains low. This is related to low productivity of the agriculture sector. Africa's agricultural production per capita has stagnated over the last thirty years while all other world regions have increased dramatically (see graph below).



Note: The series "Africa simple average" refers to the simple average of all African countries for which WDI contains data in the given year.

Source: Calculations based on World Development Indicators, 2019

15. Agriculture's importance goes beyond its value addition in GDP. The agricultural sector employs some 60% of the continent's total labour force⁶ and represents one-third of total export earnings. Empirical evidence shows that increases in agricultural incomes in many African countries are amplified through growth multipliers of the order of 1.5 to 2.7, resulting from expenditure and consumption linkages from agriculture to other sectors of the economy. The widespread increase in income through broad-based agricultural growth and transformation (through backward and forward value addition and skills) is thus crucial in achieving the full potential of these multiplier effects to deliver on Africa's wealth creation and poverty eradication agenda.

16. Owing to the importance of agricultural commodities, and the sector as a whole, AU Heads of State and Government, in 2014 through the Malabo Declaration committed to taking measures aimed at transforming agriculture on the continent. Among other goals, this commits the AU to ending hunger by 2025, tripling intra-African trade in agricultural commodities and services, and providing job opportunities for at least 30% of the youth in agricultural value chains, while facilitating preferential entry for women and the youth in attractive agribusiness opportunities.⁷ The Malabo Declaration reinforces one of the AU's flagship programmes, the CAADP, as the key framework for driving agricultural transformation on the continent.

17. Despite the strong economic recovery in Africa over the last decade, average agricultural annual growth has nonetheless barely reached 4% and, with the exception of a few countries, remained below the 6% targeted in the CAADP. Fuelled by high population growth (about 3% per year), rapid urbanisation (at an annual pace of 5%), income growth (of about 5% per year) and the emergence of a larger middle class, Africa's food demand continues to outstrip domestic supply, whereas formal intra-regional trade amounts to only about 7% of total agro-food trade on the continent – and would remain low, even if provisions for informal cross-border flows could double this level. The continent's net agro-food import bill is currently about US\$ 66 billion and projected to increase to US\$ 110 billion by 2025 .

18. Compounding the inadequate agricultural annual growth, Post-Harvest Loss (PHL) in Africa is also alarming, and for grains is estimated to be over \$4 billion p.a., although accurate data on for many African states is patchy. This has been a focus of the CAADP and the Malabo Declaration, resulting in the African Union Work Plan on PHL, including PHL mapping and the PHL M&E Framework.. Almost all of Africa's PHL occurs between

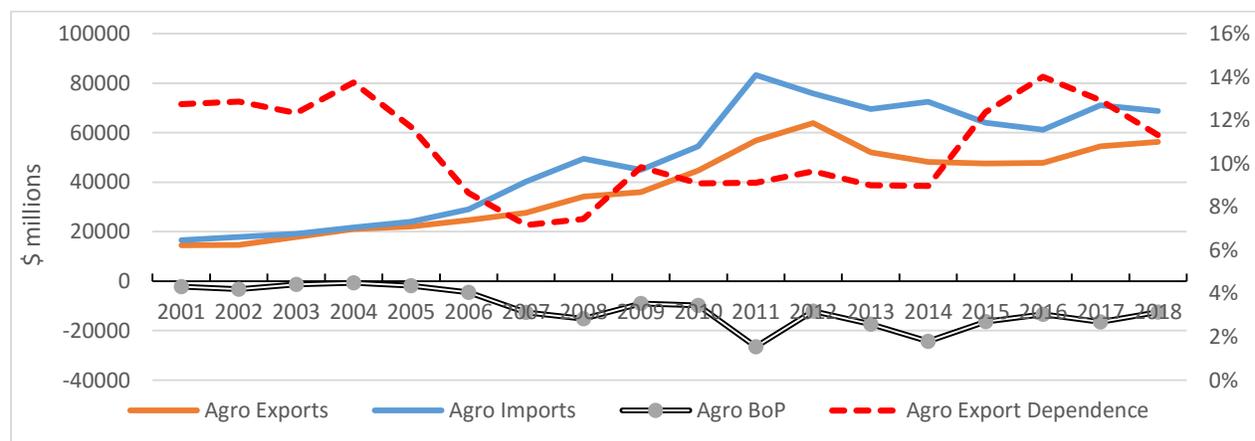
⁶ <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD>.

⁷ *Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods*. Addis Ababa : Africa Union, 2014.

harvest and retail⁸, particularly in storage and transport, indicating the need to incorporate the AU Africa Commodity Strategy into its PIDA strategy for the provision of African agriculture infrastructure, especially adequate storage and transport infrastructure.

19. Intra-regional agro-commodity trade is severely constrained by a wide range of hindering factors such as poor infrastructure, non-tariff barriers (NTBs) including issues concerning sanitary and phytosanitary standards (SPS) and, above all, inconsistent trade policies and regulations. Hence, in the face of apparent abundant but unexploited suitable resources (especially land and water) for agriculture, the continent still depends on extra-African sources for at least 80% of its imports of food and agricultural products. In 2018 agro-commodity imports were approximately \$69bn from outside Africa, and approximately \$9.6bn from within Africa, whilst Africa's exports were approximately \$56.3bn, as shown by Figure 1 below .

Figure 1 Africa Trade in Agricultural Commodities (USD million)



Source: Calculations based on ITC Trade Map database

20. African economies suffer particularly from four major features of their trade in food and agriculture. First, the continent's export base is heavily concentrated on a limited range of raw commodities (coffee, cocoa, nuts, fruits, vegetable oils, coffee, sugar, tobacco, tea, wood, cotton, rubber, vanilla, peanut, palm oil, pineapple, banana, gum Arabic, livestock skins and hides, fish and shellfish, etc.) for which Africa is mostly a price-taker in global value chains, owing to the fragmentation of supply which leads to uncoordinated and limited negotiating power.

21. Second, Africa has a large overall negative trade balance in agro-commodities (about \$12.5bn in 2018) which it can ill afford. The largest imbalances are for food and beverages (at approximately \$11.6bn in 2018) and animal products (at approximately \$7.3bn in 2018), while agricultural raw materials⁹ had a positive balance of approximately \$6.4bn in 2018 . Although Africa has limited climate zones for the displacement of some

⁸ Africa's food PHL at retail to consumption is the lowest in the world, but from production to retail is about 160kg per capita p.a. (37)

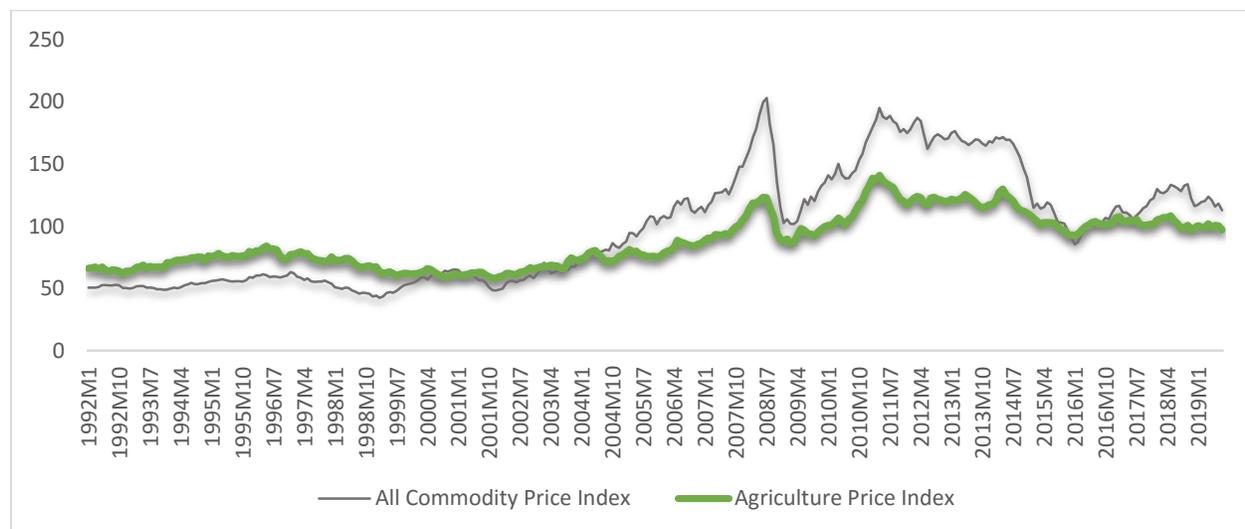
⁹ Mainly tobacco, natural fibres, wood, plants & cut flowers, rubber and leather

of its food imports (e.g. wheat¹⁰, barley and hops), most of the imported foods could be viably produced in Africa¹¹, although several have had their prices depressed due to agro-subsidies in developed countries. This indicates a need to develop strategies to produce the main imports within the continent and to lobby for the reduction and removal of agro-subsidies, in order to “level the playing field”.

22. Third, notable among Africa's fast-growing agro-food imports are processed value-added products which, in net terms, account for about 70% of the continent's total agro-food import bill on average. Africa's agricultural trade balance has deteriorated as exports of the low-priced raw commodities have been growing at a much slower pace (about 3% p.a.) than imports of the higher-priced processed products (about 8% p.a.) over 2010-2015, pointing to the need for accelerating agro-processing industry development in a value-chain approach that builds strong linkages between policies and strategies for agricultural, trade and industrial development.

23. Fourth, as a price-taker on both export and import sides, Africa remains highly vulnerable to shocks and high price volatility in the global agro-food markets, as well as to unfair global trade practices and competition from often subsidised, highly developed and productive agricultural and agribusiness systems – in a context marked by growing and worrying speculation over food and agricultural products at the global level, as shown by Figure 2 below. Accordingly, Africa needs to scale up its objection to the destructive agricultural subsidies provided in developed countries.

Figure 2 Agriculture Commodity Price Index (2016=100)



Source: Calculations based on IMF. Commodity Data Portal (2)

¹⁰ In 2018 wheat and flour imports amounted to a staggering \$11 billion.

¹¹ Africa’s imports of rice, vegetable oils, sugar, maize, soya beans, dried vegetables, tea, coffee and fruit juices amounted to \$30.3bn in 2018 and palm oil alone amounted to \$4.6bn (7)

24. As a result of these defining features, Africa's agro-food systems remain at the bottom (primary stages) of the global value chains, with weak linkages between farmers and intra-African and global markets. This has resulted in low incomes for farmers and the loss of considerable job and wealth creation opportunities in the agro-industry and agribusiness services sectors. This is the basic rationale for a comprehensive, integrated commodities strategy which aims at maximising the contribution of agriculture to broad-based, inclusive economic growth, resulting in job creation, shared prosperity and poverty eradication in Africa. From the outset, such a strategy should look inward at how the continent should organise itself. It needs to craft policies and instruments to expand and deepen its agricultural value chains and build viable institutions with the view, first, to satisfy its own fast-growing and dynamic market and, beyond, to draw the maximum wealth from its trade interface with the global economy.

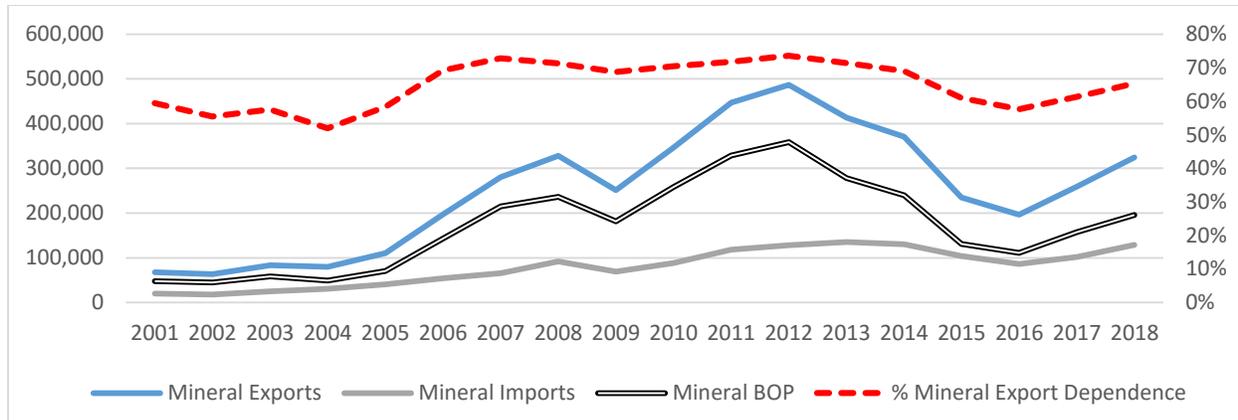
25. Opportunities on the demand side abound. The world's population is expected to grow to almost 10 billion by 2050, boosting the demand for agricultural commodities. The World Bank predicts that with increased urbanisation, Africa's urban food markets will increase fourfold and exceed US\$ 400 billion by 2030. Overall, Africa's agriculture and agribusiness (namely food and beverage) markets are projected to reach US\$ 1 trillion by 2030. Thus Africa needs to take advantage of opportunities in the agriculture and agribusiness sector. Given that agriculture is labour intensive, promoting production, value addition, supplier industries and trade in agricultural commodities will create substantial employment and increase incomes for the continent's poorest.

26. In this context, the signing of the AfCFTA agreement by African Heads of State and Government in March 2018, is notable. It gives added impetus to one of the commitments of the Malabo Declaration: to boost intra-African trade in agricultural commodities and services (to triple by 2025) by creating and enhancing policies and institutional conditions to simplify trade practices, to fast-track the establishment of the AfCFTA and the transition to a continental Customs Union with a Common External Tariff (CET) scheme, to increase investment in market and trade infrastructure, and to promote/strengthen multi-stakeholder platforms, and strengthen/streamline coordination mechanisms, as espoused in the Abuja Treaty. The aim of all this is to promote a common African position on agriculture-related international trade negotiations and partnerships.

Mineral Commodities

27. Despite Africa being well endowed with mineral resources, these have not translated into meaningful and tangible benefits for the continent. Africa remains characteristically poor, with low economic growth, conflict, war and civil strife. This situation has been widely described as the 'resource curse'. Africa as a whole is a 'minerals economy' (mineral exports exceed 50% of total exports). The sector's contribution to GDP varies widely from 39% in Angola (oil) to zero in the Seychelles. African mineral exports, including hydrocarbons, rose from \$64 billion in 2001 to \$447 billion in 2012, before falling to \$181 billion in 2016.

Figure 3 Africa Mineral Commodities Trade (USD million).



Source: (7)

28. African mineral export dependence (including oil and gas) increased from 52% in 2004 to 74% in 2012, before falling to 58% in 2016 and then increasing to 65% by 2018. Average African mineral exports, including oil and gas, for the 18 years from 2001 to 2018 were \$252 billion per annum, and over the same period the continent's total exports averaged \$375 billion per annum, as shown by Figure 3 above. The average mineral export dependence as a percentage of total exports over the 10-year period was 64%.

29. The fact that Africa is highly dependent on the minerals sector underscores the importance of this sector to the overall development of the continent. Despite reports in recent years of significant economic growth in some parts of Africa, extreme poverty is on the increase rather than being in decline. Without a doubt, poverty is the biggest indicator of under-development in Africa. The pace of globalisation, coupled with the sweeping wave of economic liberalisation, including the imbalances in the distribution of the benefits from the mineral sector in favour of the strong mining companies, continues to undermine the ability of African countries effectively to integrate upwards into the global value chains and optimise the benefits from the minerals sector.

30. On average, the continent has a positive minerals trade balance of \$173 billion (2001-18) and mineral imports average 32% of exports. Mineral imports are mainly oil and oil products, despite Africa being a significant exporter, indicating opportunities for greater intra-African trade and processing (refining). However, the trade balance for industrial minerals & polymers is consistently negative and averaged minus \$7.3 billion from 2001 to 2018, predominantly polymers, despite Africa have having substantial polymer feedstocks (oil, gas or coal), indicating the need for a viable continental polymer import displacement strategy.

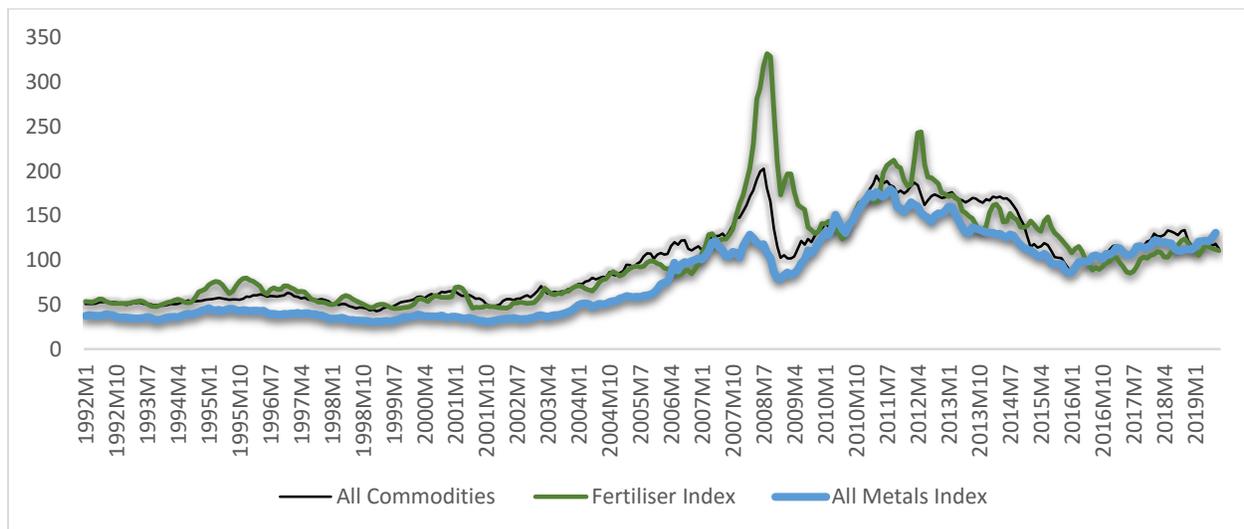
31. The sharp and continuous decline in commodity prices which started in 2012, continues to maintain its staying power at a crisis level. The situation is complex, uncertain and ambiguous. Commodity prices have significantly fallen across the board, albeit at varying degrees. Commodity price indices have all fallen with the World Bank Metal Price Index which ended in 2015 at 50% lower than its 2011 highs¹². Price formation and

¹² World Bank, 2015

movements determined by both market fundamentals as well as by non-market forces, remain difficult to predict.

32. The decline in real mineral commodity prices started in 2011, continued to 2016, before levelling out, albeit at a higher level than the very low prices experienced in the 1980s and 1990s. Mineral commodity prices have significantly fallen across the board albeit at varying degrees. Commodity price indexes have all fallen with the IMF Metal Price Index average for 2019 at 32% lower than its 2011 high, as shown by Figure 4 below. Mineral prices, determined both by market fundamentals as well as non-market forces, remain volatile and difficult to predict.

Figure 4 Mineral Commodity Prices Indexes (2016=100)



Source: Calculations based on IMF. Commodity Data Portal

33. The African continent faces many constraints in the pursuit of mineral value addition. A general lack of appropriate policy frameworks and strategies to drive the industrialisation, value addition and beneficiation agenda is a major constraint in most countries. While some states have noted the need to industrialise and add value to minerals, a coherent, organized approach to this is often lacking. Where available, the policy frameworks are rarely supported by appropriate laws and regulations.

34. A number of challenges inhibit the development of economic linkages in the African minerals sector. Medium-sized enterprises and supporting industries to drive industrial development and promote exports are few, and often lack competitiveness. Micro- and small enterprises have difficulties in growing sustainably and to make the transition to being medium-sized and large enterprises due to a wide range of obstacles, including inadequate infrastructure, limited access to finance and the shortage of a skilled workforce relevant to higher value-added activities. Other challenges include limited technical, entrepreneurial and organisational skills, which have hindered the continent's efforts to promote a competitive mineral resource sector as an engine for growth and sustainable development.

35. These problems are compounded by an inadequate allocation of resources to key government institutions supporting the minerals sector, limited human and institutional capacities, insufficient regional collaboration, lack or inadequacy of policies and strategies to reinforce the participation of local entrepreneurs along the value chain, inability to anticipate the evolving needs of the fast-growing and innovative mining sector, and to plan in the long-term. Most of Africa's education and training institutions operate with inadequate curricula and poor promotion of Science, Technology, Engineering and Mathematics (STEM), insufficient Education and Training (E&T) and Technical and Vocational Education Training (TVET) institutions. In addition, there is an under-utilisation of ICTs in education. Furthermore, the resulting mismatch between the available capacities and capabilities at the national and regional levels, as well as emerging challenges from the mining industry, translates into a loss of opportunities for local entrepreneurship to play a greater role in the emergence of a viable regional value chain. All these gaps, if not addressed, could lead to a missed opportunity for the continent to benefit from the wealth offered by the minerals sector.

36. Generally, linkages between the mining and other economic and social sectors are not well developed, with interventions such as infrastructure, education and others servicing mining in a silo rather than being integrated into a national cross-sector strategy. As a result, the minerals sector of most African countries remains delinked from the economy at large, with little domestic processing and value-addition of mineral outputs, local provision of industrial and service inputs to mining, or diversified mineral-based economic activities. This reflects the focus of the industry on extracting and evacuating bulk minerals to overseas markets with limited interactions with other domestic activities.

37. As a result, the sector is characterized by limited direct and indirect employment generation; low incomes; continued domination of primary mineral extraction and export; continued import of high-value inputs and manufactures; as well as duplication of investment in infrastructure for mining factors. This impedes breaking the cycle of poverty and unemployment in mineral-rich countries, whilst placing a strain on foreign exchange reserves and macroeconomic balances and on government budgets to deliver services.

38. Evidence of the limited development impact of minerals indicates a need for regional local content strategies and frameworks. Local content definitions need to cater for the quantum of locally produced materials, local personnel, goods and services and equity ownership by local citizens. Regional frameworks should include giving regional inputs preferential treatment ('regional content').

39. Evidence indicates that to date there have been no disputes over minerals that have been brought to the World Trade Organisation (WTO) despite rules against mandatory and quantitative Local Content Requirements in the Agreement on Trade-Related Investment Measures (TRIMs). An increasing concern is the bad track record of mining companies in matching voluntary company policies on local content/procurement to on-site practice. Loopholes in definitions and in monitoring and oversight can increase opportunities for corruption. Sector-specific policies are often not consistent with wider development objectives.

40. Most African countries are faced with poor prospects for institutional capacity in monitoring implementation of local content which increases the risks of misuse of the framework for patronage networks, and the resulting reputational damage. Compliance in sharing confidential company information in submissions can be a deterrent for investors. Further, harmonisation of requirements tends to put medium-sized firms at a disadvantage compared to large-scale firms. There is further evidence of a growing number of investment disputes over mineral investment projects under the jurisdiction of bilateral investment treaties. Another major issue includes social sustainability challenges, as policies and frameworks for multi-dimensional local content requirements are often not inclusive of requirements at the local community level.

41. Governance of the mining sector, both economic and political, remains a key issue of concern. Political and economic decisions within the mineral sector are fundamental to attaining critical mineral led development pathways. Political and economic decisions help shape how the resulting governance of the sector can either broaden or reduce the benefits accruing from a country's mineral resources at all levels of society. The increased pressure exerted by growing dissatisfaction with how mineral wealth is managed and distributed, and the snowball effect of this on poverty and economic development, are increasingly providing a potential opportunity to tip the precarious balance of the governance systems of most Africa countries.

42. Artisanal and Small Scale Mining (ASM), where it is legally allowed, provides employment revenue generation for many rural communities. However, it is characterised by several challenges that constrain the realisation of developmental potentials. These include inadequate policy and regulatory frameworks; limited technical capacity of miners; inadequately explored mineral-bearing areas; gender insensitivities and child labour issues; as well as lack of access to finance and appropriate technologies. These challenges generally lock the ASM actors into a cycle of poverty-driven subsistence operations that contribute to the marginalisation of the ASM sector from the broader national economy.

43. Employment, capacity-building requirements and procurement requirements provide strong potential for multiplier effects. A well-established local content policy can reduce the risk of discretionary tax reassessment by government. Balance of power in favour of governments in tax reassessment and contract renegotiation can be leveraged so as to establish a local content policy. Local content frameworks can address distributional issues at the sub-national level. There is also a growing potential for partnerships between government, local authorities, civil society organisations, development partners and the private sector on the capacity building segment of local content.

44. The ASM can be an engine for growth in Africa if properly harnessed and integrated into development strategies. Addressing issues such as financial inclusion and enacting enabling policies could contribute to harnessing the potential of the ASM in improving rural livelihoods and stimulating entrepreneurship in a socially responsible manner.

45. The AfCFTA, by integrating African markets, could yield economies of scale that would greatly enhance competitiveness and boost regional value chains in the mining sector. This would then increase the contribution of the sector to Africa's inclusive economic growth and sustainable development.

46. Unlike agricultural production, mineral production resources are finite and every mineral deposit will ultimately be exhausted, leaving behind ghost towns and holes in the ground. Consequently the issue of 'inter-generational equity' is pertinent to the extraction of Africa's finite mineral resources. To address this, the AMV recommends the establishment of 'Future Funds', Sovereign Wealth Funds (SWFs) or Stabilisation Funds. Such funds would save part of the resource rents for future generations, when the resources are depleted. This type of mechanism is also used to keep part of the revenues offshore to ameliorate local currency appreciation ('The Dutch Disease') and for stabilisation funds to ameliorate price volatility. To quote the AMV *"This would 'drip-feed' the boom rents back into the economy over a 10 to 20 year period and could in theory ameliorate the 'shock' effect of large forex inflows both on the balance of payments (current account) and the national budget. However, it is extremely difficult for a poor state to resist the demands of its people for immediate, but unsustainable, poverty relief. Therefore such fiscal policies need to be enshrined in law with provisions to make it difficult for a future populist government to use the offshore funds to buy short-term popularity."* [12, p. 29]

47. The fact that Africa is highly dependent on the minerals sector underscores the importance of the sector to the overall development of the continent. Despite reports of significant economic growth in recent years in some parts of Africa, extreme poverty is on the increase rather than declining. Poverty without a doubt is the biggest indicator of under-development in Africa. The pace of globalisation, coupled with the sweeping wave of economic liberalisation, including the imbalances in the distribution of the benefits from the minerals sector in favour of the mining companies, continues to undermine the ability of African countries effectively to integrate forwards and backwards into the global mineral value chains and optimise the benefits from the minerals sector.

48. The Africa Union Heads of State adopted the Africa Mining Vision (AMV) in 2009. This was followed in 2014 by the Country Mining Vision .. These two documents provide a comprehensive blueprint for maximising the developmental impact of mineral commodities extraction through building the mineral linkages (backward, forward and side stream), partnerships (with the private sector, civil society, communities, labour, et al) and investment in the geological knowledge of Africa's endowments in order to optimise returns to Africa through competitive mineral concession leasing and price discovery. The AMV envisions *"Transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development"*, comprising *"A knowledge-driven African mining sector that catalyses & contributes to the broad-based growth & development of, and is fully integrated into, a single African market"* .

49. Application of the AMV has proved to be difficult for many of the smaller- to medium-sized African states, due to their limited mineral resources base (range and

sizes), as well as their limited markets for establishing both the upstream and downstream linkages along the mineral value chains. Consequently, it was realised that a regional (REC) approach was required to realise the linkages and economies of scale, and this led to the formulation of a southern African Regional Mining Vision (SADC RMV) adopted at the SADC Summit in August 2019. However, the translation of the SADC RMV into viable regional strategies, projects and programmes will take a number of years to unfold.

50. African mining is dominated by foreign mining companies, many of which are domiciled in tax havens and/or secrecy domains, often in order to hide transfer pricing for illicit financial flows (IFFs). The main reason for the domination of FDI in mining is the lack of access to cost-competitive capital for local firms in almost all African states, making it extremely difficult for African firms to develop Africa's mineral resources. The cost of capital for the mining majors is invariably much lower than that of the African states that they operate in. This has led to a massive outflow of profits, both legally (repatriations) and illicitly through IFFs. Furthermore, the domination of African mining by foreign capital severely stunts the development of the mineral linkages, which are more likely to be established by local companies. Foreign companies have global processing facilities, serving to limit local beneficiation, and they also have global purchasing systems that limit local backward linkages (supplier development) as well as global HRD and R&D alliances usually in their home country which do not stimulate local skills and technology development by means of side-stream linkages. Consequently, an African Commodity Strategy needs to include sub-strategies to nurture and build local, African, commodity production enterprises.

51. The African continent faces many constraints in the pursuit of mineral value addition and industrialisation. In most countries, a general lack of appropriate policy frameworks and strategies to drive the industrialisation, value addition and beneficiation agenda is a major constraint. While African states have approved the AU 2009 Africa Mining Vision (AMV), which provides a coherent and organised approach through the realisation of all the mineral linkages opportunities to using minerals to industrialise, few have even partially applied the AMV in their domestic economies. Where available, national policy frameworks are rarely supported by appropriate laws and regulations.

52. A number of challenges inhibit the development of economic linkages in the African minerals sector, including supplier firms and beneficiators. Medium-sized enterprises and supporting industries to drive industrial development and promote exports are few, and often lack competitiveness. Due to a wide range of obstacles, including infrastructure shortages, limited access to finance and the shortage of a skilled workforce relevant to higher value-added activities, micro- and small enterprises face difficulties in growing sustainably and making the transition to medium-sized and large enterprises. Other challenges include limited technical, entrepreneurial and organisational skills, which have hindered the continent's efforts to promote a competitive mineral resource sector as an engine for growth and sustainable development.

53. These problems are compounded by an inadequate allocation of resources to key government institutions supporting the minerals sector. This includes limited human and institutional capacities, insufficient regional collaboration, and lack or inadequacy of

policies and strategies to reinforce the participation of local entrepreneurs along the value chain, all leading to an inability to anticipate the evolving needs of the fast-growing and innovative mining sector and to plan in the long-term. Most of Africa's education and training institutions operate with inadequate curricula, poor promotion of Science, Technology, Engineering and Mathematics (STEM), insufficient education and training (E&T) or Technical and Vocational Education Training (TVET) institutions, under-utilisation of ICTs in education, etc. Furthermore, the resulting mismatch at the national and regional levels between the available capacities and capabilities, , as well as the emerging challenges of the mining industry translates into reduced opportunities for local entrepreneurship to play a greater role in the emergence of viable regional mineral value chains. All these gaps, if not addressed, could lead to a missed chance for the continent to benefit from the wealth and opportunities offered by the mineral sector.

54. Generally, linkages between the mining and other economic and social sectors are not well developed, with interventions such as infrastructure, education and others servicing mining in a silo or enclave development rather than being integrated into a national cross-sector strategy. Subsequently, the mineral sector of most African countries remains substantially delinked from the economy at large, with little domestic processing and value-addition of mineral outputs, local provision of industrial and service inputs to mining, or diversified mineral-based economic activities. This reflects the industry's focus on extracting and evacuating bulk minerals to overseas markets with limited interactions with other domestic activities. Accordingly, the key tenets of the AU's AMV need to be translated into national and regional policies and interventions.

55. As a result, the sector is characterised by a number of drawbacks: limited direct and indirect employment generation, low incomes, continued domination of primary mineral extraction and export, continued import of high-value inputs and manufactures as well as inefficient duplication of investments in infrastructure for mining operations (transport, water, energy, ICT, etc.). This impedes breaking the cycle of poverty and unemployment in mineral-rich countries, whilst placing a strain on foreign exchange reserves and macroeconomic balances and on the government budget to deliver services. It requires urgent remedial action.

56. Governance of the sector, both economic and political, remains a key issue of concern. Political and economic decisions within the minerals sector are fundamental to attaining critical minerals-led development pathways. Political and economic decisions help shape how the resulting governance system of the sector can either broaden or reduce the benefits accruing from the country's mineral value chains at all levels of society. The increased pressure exerted by growing dissatisfaction with how mineral wealth and associated opportunities are managed and distributed, as well as the snowball effect of this on poverty and economic development, are increasingly providing an opportunity to tip the precarious balance of governance systems of most Africa countries. This clearly requires urgent attention, credible strategies and viable interventions

57. Employment, skilling, capacity-building and procurement requirements hold strong potential for multiplier effects. A well-established local content policy can reduce the risk of discretionary tax reassessment by government. The balance of power in favour of

governments in tax reassessments and contract re-negotiation can be leveraged for establishing a local content policy. Local content frameworks can often address distributional issues at the sub-national level. There is also growing potential for partnerships between government, local authorities, civil society organisations, development partners and private sector on the capacity building aspect of local content (supplier development).

58. Artisanal and Small-Scale Mining (ASM) provides employment and revenue generation for rural communities. However, it is characterised by several challenges that constrain the realisation of its developmental potential. These include inadequate policy and regulatory frameworks, limited technical capacity of miners, inadequate state technical extension services, inadequately explored mineral-bearing areas, environmental damage, gender insensitivities and child labour issues, lack of access to finance and appropriate technologies and a lack of formalisation or legalisation. These challenges generally lock the ASM actors into a cycle of poverty-driven subsistence operations that contribute to the marginalisation of the ASM sector with regard to the broader national economy. ASM needs to be mainstreamed and supported to ameliorate its negative impacts and to enhance its contribution to the economy and livelihoods.

59. The ASM sector can be an engine for growth in Africa if properly harnessed, capacitated and integrated into national development strategies. Addressing issues such as financial inclusion and enacting enabling policies could contribute to harnessing the potential of the ASM in improving rural livelihoods and stimulating entrepreneurship in a socially responsible manner.

60. Mining has attracted significant FDI this century, much of it to establish the requisite infrastructure for mining operations (rail/road, ports/terminals, power, water, ICT, etc.)¹³ and this needs to be integrated into national and regional infrastructure planning to optimise synergies. Indeed, PIDA needs to use mineral resource rents¹⁴ to configure mining infrastructure investments to maximise the positive collateral impact on other sectors with meagre resource rents, such as agriculture.

61. The AfCFTA, by integrating African markets, could yield economies of scale that would greatly enhance the competitiveness and boost regional value chains in the mining sector, particularly the supplier sector and the production of mineral-based feedstocks into the regional economy. This would then increase the contribution of the sector to Africa's inclusive economic growth and sustainable development.

Energy Minerals

62. Energy itself is not a commodity because of the limited scope for global trade in its main forms, such as electricity (requires costly transmission connections with significant losses over long distances¹⁵) and heat (impossible to viably transport over long

¹³ For example, for a new African iron ore mining operation, the infrastructure can typically constitute from 50% to 70% of the total capital requirement (capex).

¹⁴ 'resource rents' are the surplus after all costs including a normal return on investment

¹⁵ This is why it is more efficient to trade in energy carriers such as oil, gas, coal & uranium.

distances). However, the globally-traded energy carriers are mineral commodities, namely fossil fuels (oil, gas, coal) and uranium. These are also part of several other global value chains, such as petrochemicals and polymers/plastics (oil, gas & coal), fertilisers (nitrogen from natural gas), ferrous and non-ferrous metallurgy (coal, coke, petcock), machinery and equipment lubricants (oil and coal), armaments and medical (uranium).

63. Africa has considerable reserves and varieties of energy resources, including fossil fuels and renewables. The continent accounts for over 8% of the world's crude oil reserves, estimated at over 127 billion barrels (3) . This is, however, only half of Africa's share of world landmass (20%) or population (16%), suggesting the likelihood of further future discoveries from greater investment in exploration. Africa also accounts for about 7.5% of the total reserves of natural gas in the world, estimated at about 15 trillion cubic meters. Only about 11% of Africa's technically feasible hydropower potential, of over 300GW, is tapped¹⁶ and its reserves of woody biomass alone are estimated at over 70 billion tonnes . The potential for geothermal energy on the continent is estimated at over 15,000 MW, mostly concentrated in the Rift Valley countries¹⁷. The potential for solar and wind energy in Africa are also large and available across all the regions on the continent.

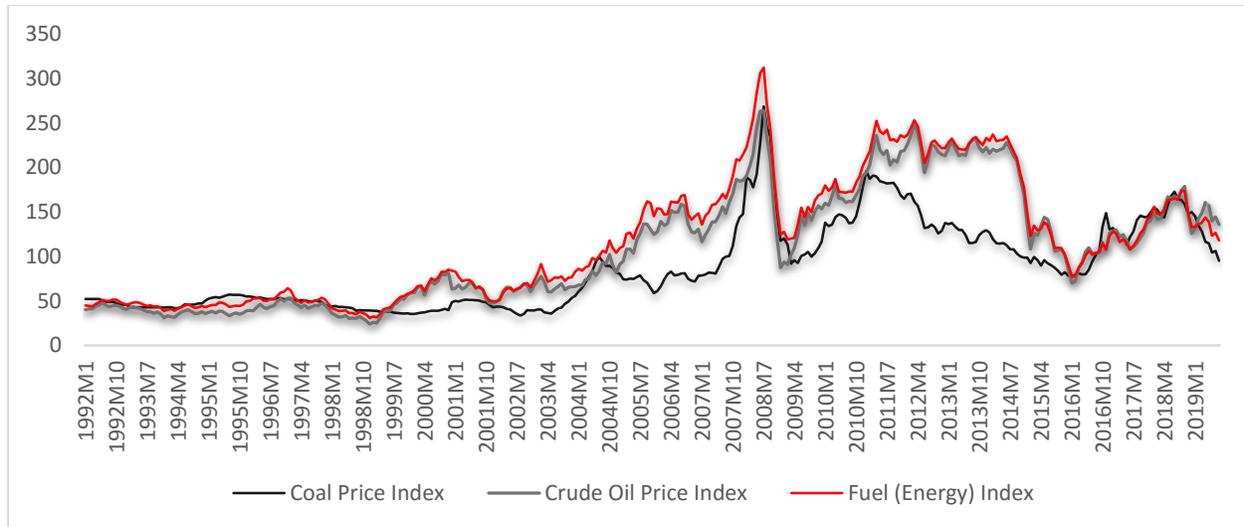
64. Energy commodities, especially fossil fuels, are a major source of revenue for the oil and gas exporting countries in Africa such as Nigeria, Angola and Algeria, accounting for between 50% and 80% of government revenues . Despite producing almost 10 million barrels of crude oil per day, which represents about 10% of global crude oil production, Africa's crude oil consumption is the lowest in the world, at less than 4%¹⁸. Moreover, over 70% of the crude oil produced in Africa is exported out of the continent and Africa has only 3.6% of global oil refining capacity , indicating that most of the oil resources on the continent are not fully exploited at the domestic level and opportunities for value addition, local manufacturing and trade are lost at the local level. In terms of natural gas, Africa exports more than 45% of its total production .

Figure 5 Energy Mineral Price Indexes (2016=100)

¹⁶ IHA. *Hydropower Status Report 2019*

¹⁷ IRENA. *Renewable Energy and Jobs Annual Review 2019*

¹⁸ BP. *BP Statistical Review of World Energy 2018*.



Source: Calculations based on IMF. Commodity Data Portal (2)

65. A majority of African countries are also net energy importers, highly exposed to the volatility of energy prices, thus jeopardising their balance of payment positions, as shown by Figure 5 above. Over US\$143 billion is spent annually to subsidise energy (oil, gas, coal and electricity) to protect consumers in African countries .. For example, Nigeria spends on average US\$5 billion per annum to subsidise fuels . This imposes a huge fiscal burden on the economies of African countries and poses a huge risk to economic development, as the majority of governments often use national revenues to pay for subsidies. Many African countries also subsidise electricity, where the tariffs are usually not cost-reflective.

66. Despite the huge energy potential, the African energy sector is characterised by a low capacity and efficiency in electricity generation This stems from high costs, unstable and unreliable energy supplies, low access to electricity, insufficient energy infrastructure, and a lack of institutional and technical capacity to use its huge resources. Currently, more than 600 million people in Africa lack access to electricity, while over 80% of the Sub-Saharan African population depends on biomass energy for cooking¹⁹ , mostly using traditional stoves with very low efficiencies leading to serious impacts on health and mortality. The exploitation of Africa’s mineral energy resources has also been accompanied by environmental and health issues, which even in developed countries threaten political stability and security in addition to exacerbating the impact of climate change and other localised pollution.

67. Currently, there still remain many factors contributing to the low levels of beneficiation from energy commodities in Africa. These include financing, low levels of domestic demand, in turn due to low levels of regional integration, inadequate policies, poor governance and low levels of technical capacity, etc. Economies of scale are critical to downstream investment in fossil fuels, and minimum viable plant capacity is constantly rising. The minimum efficiency scale for a viable oil refinery is at least 200,000 barrels

¹⁹ IEA. *World Energy Outlook 2017*

per day (bpd), which is more than the consumption of most African states²⁰. Accordingly, an Africa energy commodities strategy needs to include sub-strategies on regional integration to realise the forward and backward linkage opportunities.

68. The low levels of public financing, coupled with low levels of private sector participation, represent one of the most significant challenges to energy sector development in Africa. For example, Africa's energy infrastructure needs amounted to approximately US\$63 billion as of 2013, but only US\$8 billion was invested in energy infrastructure during that year²¹. This leaves a financing gap of about US\$55 billion per year.

69. The lack of, or distorted, markets for energy commodities in most African countries is another major barrier, directly linked to the low levels of infrastructure and affordability issues that have created a low demand for energy commodities. The processing and transport of energy commodities normally requires specialised or large infrastructure, including pipelines, power plants, refineries, etc., which also require huge finances to build. There is thus an absence of large markets that will enable economies of scale for investments in the energy sector. The low levels of industrialisation on the continent also affect the level of supply and demand for energy commodities, underlining the need for regional economic integration.

70. There are also inadequate policies and institutions that promote value addition and supplier industries for energy commodities in Africa. Where such policies and institutions exist, there is weak implementation of policies and regulations, thus leading to uncoordinated markets and inefficient production that hampers value addition and supplier development for energy commodities. For example, countries such as Nigeria are still struggling to end gas flaring.

71. The development of the African energy sector is also severely affected by the low levels of technical capacity and skills to build and maintain infrastructure that will enable effective processing and supplies of energy commodities. At the moment, Africa is refining and processing a small fraction of the energy commodities it produces, partly due to inadequate skills capacity. The absence of frameworks and strategies to encourage technology innovation and transfer are hampering technology absorption and uptake in this sector.

72. Poor governance also poses a major barrier to energy sector development in Africa. Over the years, conflicts, corruption, bureaucracy, etc. have led to poor management of Africa's energy resources. Most often in resource-rich countries, questionable concessions and exploration rights have been given to companies without proper consideration of how these countries would maximise the benefits from these resources.

²⁰ The Reliance Jamnagar Refinery in India has a capacity of 1.24 million barrels per day (bpd).

²¹ APP. *Africa Progress Report 2015*

73. Most often, there is no information available on potential opportunities and markets in the energy sector to policy-makers, institutions and other stakeholders, especially the domestic private sector,. There are also no coherent databases and information systems at different levels, which will enable the tracking of trade and markets. This in turn lead to low levels of policy and strategy responses in the energy sector.

74. Despite the challenges, the huge reserves and variety of energy resources on the continent provide Africa with great opportunities to improve energy access, accelerate economic growth and industrialisation, reduce poverty and maximise earnings from energy commodities through value addition and diversification. The energy sector provides opportunities to provide electricity to over 600 million people so far left without access (over 55% of sub-Saharan Africans). With about 6% annual growth rate in energy demand on the continent²² , the demand for energy commodities and services provide opportunities for developing all kinds of energy systems, including those using fossil fuels and renewables at the local, national and regional levels.

75. In addition, the huge energy resources on the continent also provide ample opportunities to promote regional trade and integration among member states (4). Moreover, the energy resources are unevenly distributed thus creating the need to trade across countries and regions (4). For example, most of the oil reserves are concentrated in Northern and Western Africa. This could create the need to supply oil and gas to other regions through regional energy infrastructure, thus facilitating market creation and expansion as well as regional integration. Currently, there is virtually no trade among African countries in terms of petroleum products. In 2018 Africa sourced \$9 billion worth of crude oil from Africa and \$10.4 billion from outside Africa (nearly 50%) while in the same year it sourced 6.7 billion of petroleum products (mainly liquid fuels) from Africa and imported \$39.5 billion from outside Africa (only 14.5%) .

76. The exploitation, transportation, trading and utilisation of energy resources have the potential to create significant employment along whole value chains, in addition to providing the necessary inputs to promote economic development in other sectors. In Asia, for example, renewable energy has created about 6 to 7 million jobs . This provides Africa with the opportunity to replicate lessons learned in other world regions.

77. It would appear that the development of a robust energy system on the continent will require the development and implementation of coherent, consistent and favourable policies and strategies in the energy sector. There seems to be a need to set clear and achievable targets in the sector, for example the proportion of energy commodities that should be processed within Africa and energy sector local content targets, as well as clear guidelines on trade of energy commodities, at both the international and domestic levels.

78. Africa will continue to play a significant role in the global energy markets as more resources, especially oil and gas resources, are continually being discovered. Energy commodities will also continue to be central to the economic growth and revenues of many African countries. However, Africa remains the continent with the lowest level of

²² PIDA. *PIDA Market Demand Study*

industrialisation despite the huge resources within it. The volatility of energy commodity prices, especially oil and gas prices, social and political conflicts and poor management have also significantly reduced the gains from export revenue in most of the countries with fossil fuel resources. Thus, in order to reduce their dependence on 'raw' commodities, there is a need for these countries to diversify their revenue bases, through energy commodities value addition, inputs development (local content) and sectoral diversification. The development of infrastructure and energy systems that will enable the creation of markets within Africa, as well as the promotion of industrialisation, are of crucial importance if Africa is to benefit from and maximise its gains from its substantial energy resources.

Chapter 3: The Strategy

79. This chapter presents the strategic orientation (that is, vision and mission statements), pillars, issues, objectives and actions outlining how Africa can utilise its commodities to drive sustainable industrialisation, economic diversification, structural transformation and development.

Vision Statement

80. "Commodities contributing to an integrated, prosperous and peaceful Africa, driven by its own citizens and representing a dynamic force in the international arena"²³.

Mission Statement

81. "Optimal utilisation of African commodities to drive value addition, sustainable industrialisation and trade for transformative and inclusive development".

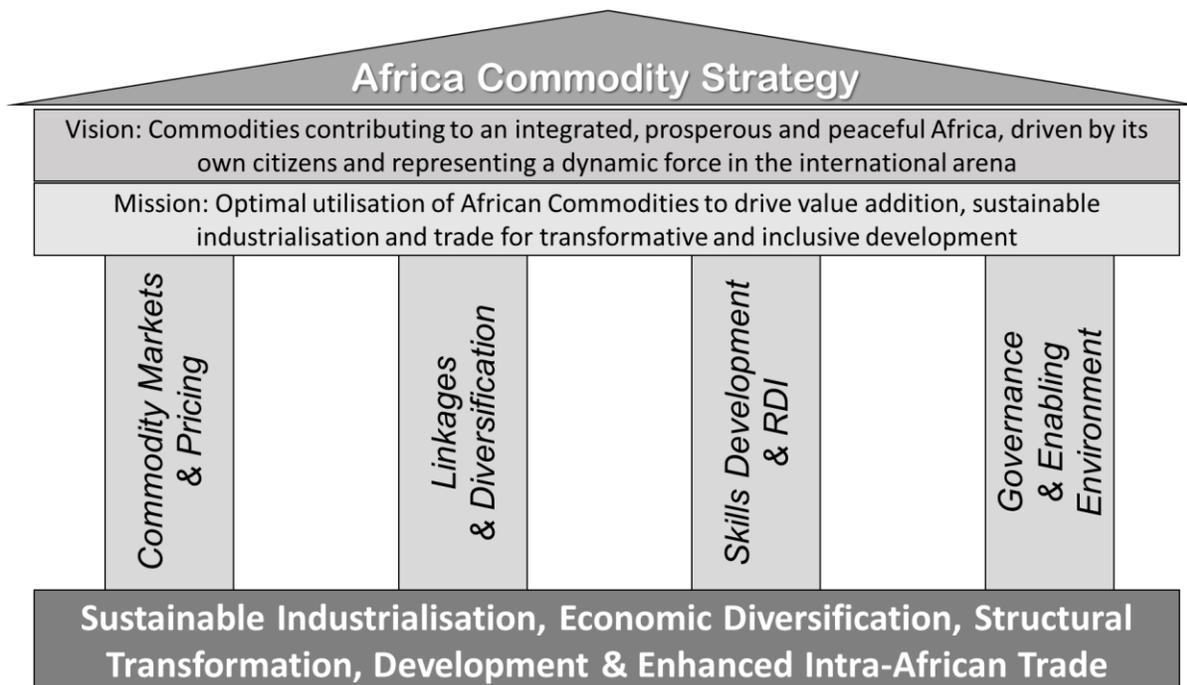
Strategic Pillars

- (i) The first Pillar covers **Commodity Markets and Pricing** and addresses the following strategic issues: financial and capital markets; competitive environment; commodity exchanges and price volatility; producer power.
- (ii) The second Pillar is about **Linkages and Diversification**, focusing on the management and sustainable use of natural resources; regional value chains development; infrastructure development; Quality Infrastructure Systems (QIS) development.
- (iii) The third Pillar deals with **Governance** and the provision of an enabling environment, taking into consideration legal and regulatory policy as well as human rights issues.

²³ AMV: "Transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development"

- (iv) The fourth Pillar focuses on **Skills Development and Research and Development (R&D)** with emphasis on skilled labour; entrepreneurship, technology and innovation.

82. The following flow chat depicts the relations among the Vision and Mission Statements, Strategic Pillars, and expected outcomes.



Pillar 1: Commodity markets and pricing

83. Africa is heavily dependent on commodities for export receipts, state revenues, and employment and livelihoods. It is a price taker in international commodity markets²⁴ which are characterised by highly volatile prices. This instability of African countries' export revenues affects the capacity of the continent to plan and implement its development projects.

84. Africa needs structured commodities markets which offer a platform enabling value chain actors to engage in commodity transactions that take place through formal channels with reduced transaction costs and increased transparency, being guided at the same time by appropriate African rules and regulations. This implies markets where producers, trading houses and financial institutions partner and propose financial instruments that respond to the specific needs of the African countries, including the need for risk mitigation management. This will help African citizens to realise maximum benefits from their commodities.

²⁴ Except for diamonds (DTC cartel) and to some extent, oil (OPEC cartel)

85. The following are the main Strategic Issues identified under Pillar 1:
- (i) Financial and capital markets
 - (ii) Conducive environment
 - (iii) Structured commodities markets
 - (iv) Price volatility
 - (v) Producer power

Strategic Issue 1 – Financial and Capital markets

86. Financial and capital markets are generally used for investment, financing, insurance (e.g. guarantee of exports) and production. Unfortunately, Africa is at a crossroads as it faces challenges due to underdeveloped national and regional financial and capital markets as well as the high risks associated with doing business.

A. Strategic Objectives:

- (i) Develop effective and competitive African financial and capital markets.**
- (ii) Develop a well-capitalised African Industrial Development Bank and VCFs.**
- (iii) Minimise risks associated with doing business.**

B. Strategic Actions:

- (i) Create supporting policies, harmonising regulatory frameworks and undertaking other necessary actions at national, regional and continental levels for effective and competitive financial and capital markets.
- (ii) Allow free movement of capital across the continent.
- (iii) Build an African Industrial Development Bank and VCFs.
- (iv) Foster public-private partnerships in building the required financial and capital markets infrastructure.
- (v) Facilitate doing business and mitigating financial risks.
- (vi) Establish and or strengthen DFIs that focus on commodity value chain development

Strategic Issue 2 – Conducive environment

87. The main concern revolves around the need to establish and institutionalise policies, laws and provision of an environment that facilitate fair and competitive practices. The AfCFTA Protocol on Competition policies, protocols and frameworks, together with the envisioned continental customs union with a common external tariff (CET), provides an opportunity for Africa to establish an integrated competitive environment for the growth and sustainability of the commodity sector, as well as protection from unfair competition²⁵

²⁵ Update data as appropriate at the time of adoption of the strategy document (South Africa to provide formulation)

A. Strategic objective:

88. Create an African conducive environment through MS's competition policy and law, and protection from unfair competition through appropriate import tariffs, building on best practices at national and regional levels.

B. Strategic action:

89. Establishment of national and regional competition policy and legal institutions in line with the AfCFTA framework, together with an African CET to tackle commodity subsidies and dumping.

Strategic Issue 3 – Structured Commodity Markets:

90. Commodity exchanges (CEs) have the potential to offer instruments and solutions that create market transparency and liquidity, mitigate risks (e.g. the importance of price discovery and reducing price volatility), stimulate market linkages, unlock trade finance and market information, as well as define trading procedures and standards that facilitate trade. They can also increase savings, reduce food insecurity and allow for greater democratisation of the economy.

91. However, it takes time and effort to increase participation and to develop the requisite systems of regulation needed to gain confidence and to protect players. In addition, the requisite trading and financial instruments need to be developed alongside an understanding agricultural commodity perishability. A regional systems approach is required, where, for example, a warehouse can be electronically verified to increase confidence that the commodities are truly available. Commodity Exchanges are places for agricultural, mineral or energy trading but not often all together in one place. Exchanges tend to specialise in one of the three commodity groups and not spread over too many commodity regimes initially. This allows for a greater specialisation and a better functioning business.

92. Successful CEs in Africa are few and far between having generally failed to build trust amongst producers, sellers and buyers and the CE managers. There are no functioning African minerals/metals exchanges, despite its substantial mineral production. Notable agricultural commodity exceptions are the South African SAFEX and the Ethiopian Commodity Exchange (ECX). The latter needed a strong and dedicated management, combined with substantial capital investment and innovative and inclusive technological solutions to effectively link all players (i.e. producers, warehouse keepers, traders, brokers and independent clearing house services and inspection providers). The basis for a successful CE is therefore the trust and confidence in them, which take time to build and be recognised throughout the country or region. Consequently, it would be best to expand on existing functional African CEs to serve the wider region (RECs) of certified warehouses, and to build new CEs in regions that lack them (e.g. ECOWAS).

93. It is important for governments to create an environment where prices are easily identified and agreed upon, where prices do not fluctuate wildly, that they properly reflect

resource abundance or scarcity and where commodity producers and sellers each receive a fairer and guaranteed share of the price, reflecting its true worth.

A. Strategic objectives:

- (i) Functional and reputable CEs in all of the major African regions, covering all of the main commodity groups (agriculture, minerals/metals and energy carriers).
- (ii) Adoption of up-to-date technologies and practices for commodity trading and market data identification and availability.
- (iii) Establishment of viable regional Common External Tariffs (CETs) and the capacity for effective application, in order to combat unfair competition, particularly that caused by commodity production subsidies in developed countries.
- (iv) Improved earnings for African commodity producers and economies, by bringing longer term planning and future contracting as a way to stabilise and secure orders and promote good market place behaviour.
- (v) Increased intra-regional commodity trading by volume and value, increased earnings for producers, and greater price stability to both sellers and buyers.
- (vi) Promote digital commodity markets removing "open cry" systems, thereby increasing transparency and increasing access to more players.

Strategic actions:

- (i) Investigate the regionalisation of existing functional and reputable African CEs that could serve their wider RECs.
- (ii) Identify suitable locations for establishment of well-functioning regional commodity exchanges in RECs that do not already have a reputable CE or that do not have a CE trading all of the major commodity groups.
- (iii) Strengthen market research institutions working in the commodities markets and develop linkages to existing CEs (explore possible connections to exchanges such as ECX or SAFEX as a faster method, to demonstrate increased and fairer selling on open markets, whilst reducing costs).
- (iv) Organise regional campaigns for mobilising stakeholders and resources, and awareness raising of CEs in Africa of trading practices.
- (v) Provide incentives for the private sector to build or strengthen the hard and soft infrastructure needed for the establishment of commodity exchanges linking sellers and buyers more transparently and faster.
- (vi) Procure appropriate technology and conduct related training for its use where needed.
- (vii) Work with the Afrexim Bank and other EXIM banks to develop financing instruments for intra-African trade in commodities through functioning and trusted African commodity exchanges.
- (viii) Strengthen Commodity Producer Associations.

Strategic Issue 4 – Pricing and price volatility:

94. Major concerns include trade mispricing, price volatility and the declining trends of commodity prices. To address this problem, African countries must consider establishing and strengthening mechanisms to anticipate and limit the impacts of crisis and price volatility.

A. Strategic objectives:

- (i) Establish mechanisms to anticipate and mitigate the impact of price volatility.
- (ii) Eliminate trade mispricing and unlawful transfer pricing.

B. Strategic actions:

- (i) Facilitate the adoption of risk management instruments, such as hedging techniques.
- (ii) Create sovereign wealth funds (SWFs) where relevant, to ameliorate commodity prices downturns (stabilisation funds), and ensure their proper management based on best practices at the global level.
- (iii) Strengthen relevant national, regional and continental institutions that oversee unlawful transfer pricing.
- (iv) Where appropriate, working with the OECD/G20 Inclusive Framework on BEPS²⁶ to curb trade mispricing²⁷
- (v) Strengthen the capacity of institutions responsible for international trade, such as customs, tax and audit authorities, in such a way that they are able to prevent transfer pricing.
- (vi) Promote safety-net programs that reduce the effects of price volatility on the economy and vulnerable people.
- (vii) Promote the use of Commodity Trading and Risk Management (CTRM) applications.

Strategic Issue 5 – Commodity producer power:

95. African commodities production and potential could in some instances be large enough to influence prices and investment in Africa along their value chains²⁸. For diamonds, African states have already used their producer power to stabilise prices and secure investment in the value chain (through the DTC²⁹ 'sights' system).

²⁶ BEPS: Base Erosion and Profit Shifting (over 130 countries collaborate on this and over 85 countries have signed the Multilateral Instrument on BEPS)

²⁷ OECD. OECD/G20 Inclusive Framework on BEPS

²⁸ The new SADC Regional Mining Vision (RMV) also contains a strategy on the realisation of potential producer power (section 7.2.11. The regional potential producer power value chains, p56) (18).

²⁹ DTC: Diamond Trading Company (De Beers in partnership with African producer states)

96. There are several other commodities where Africa could have potential producer power through coordinated marketing, such as with platinum (and other PGMs³⁰), cobalt, chromium, manganese, cocoa, vanilla, taro, sorghum, cashew and kola nuts, among others.

97. The Southern African Regional Mining Vision (SADC RMV) calls for a strategy on the realisation of potential regional producer power (section 7.2.11., p56) . However, this would be much more viable at a continental level, with a greater global share of production and potential production³¹.

A. Strategic Objectives:

- (i) Identify which African commodities could have potential producer power to stabilise prices and build the commodity value chains.
- (ii) Configure cooperative marketing systems to realise producer power, where viable.
- (iii) Establish joint market systems for the selected commodities to mitigate price volatility and develop their commodity value chains.

B. Strategic Actions:

- (i) Facilitate an analysis of African commodities that may have potential producer power through a large share of global production and/or resources, relative demand inelasticity and relative supply inelasticity.
- (ii) Support the configuration of viable joint marketing systems for the selected commodities to realise producer power, including the financing of stockpiles, to balance supply/demand, and the equitable distribution of the value chain investments (back- and forward linkages).
- (iii) Create producer commodity marketing bodies, possibly together with non-African producers, to stabilise prices and leverage value chain investments.
- (iv) Develop oversight systems to ensure the proper management of the commodity marketing bodies, based on best practices at the global level.

Pillar 2: Linkages and Diversification

98. Attaining industrial development, enhanced trade and ensuring food security in commodity-exporting economies requires effective linkages into and out of commodity production as well as diversification of the relevant economies.

99. The strengthening of linkages in the commodities sector entails consideration of backward (input suppliers/markets) and forward (commodity processors) linkages, as well as horizontal and cross-sectoral linkages. This presents important and attractive avenues

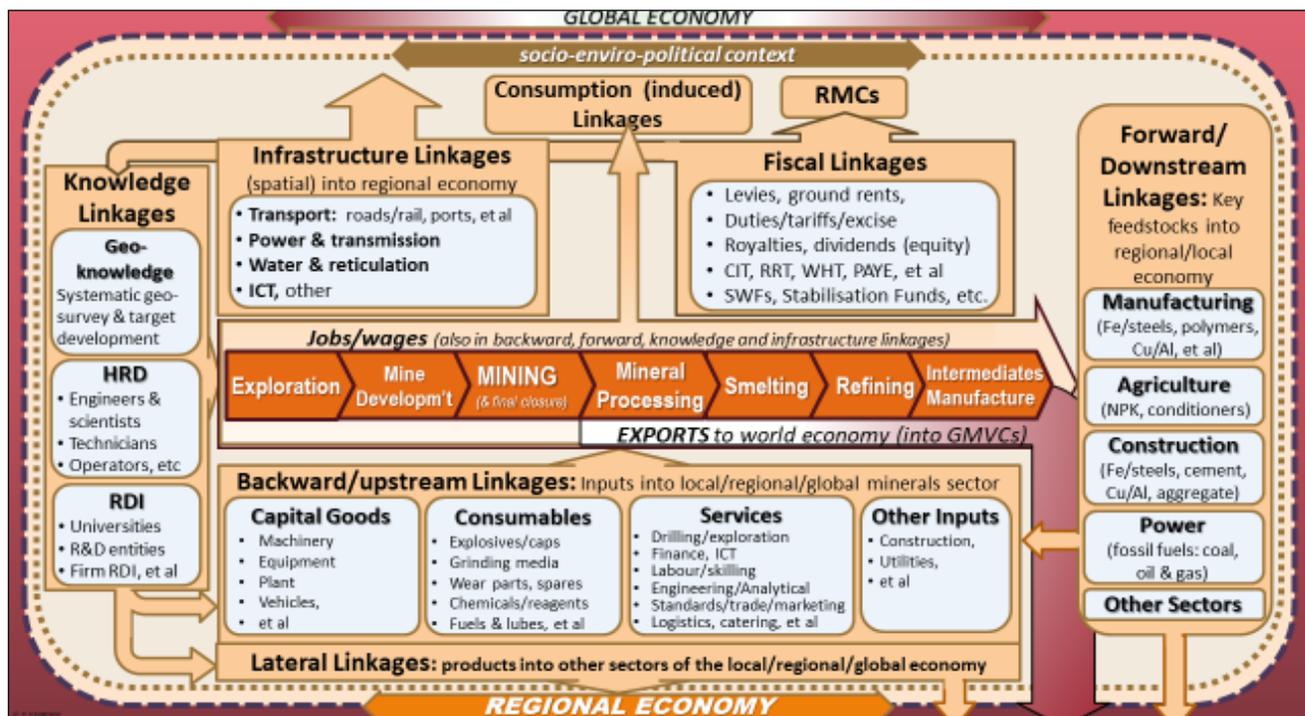
³⁰ PGMs: Platinum Group Metals

³¹ “potential production” for mineral commodities: share of resources/reserves and for agricultural commodities: share of suitable climate zones.

for industrial development. The establishment of linkages in the commodities sector will also promote economic diversification.

100. Diversification in commodity producing economies relates to the development of new products in existing value chains, the development of new value chains and linkages between commodities, industrialisation and economic growth. This also entails the development of 'lateral linkages' off the forward and backward linkages involving products for other sectors beyond the commodity value chains. A graphical representation of mineral commodity value chain linkages, from the AU AMV and the SADC RMV, is reproduced in Figure 6 below. Agricultural commodity value chain linkages would be very similar.

Figure 6: Mineral Commodity Linkages



Source: SADC. Developing a Regional Mining Vision for the Southern African Development Community (SADC). Gaborone : SADC, 2019.

101. Strengthening linkages and the diversification of the commodities sector requires the consideration of strategic issues such as the sustainable use and management of natural resource endowments; value addition and the integration of national and regional value chains into continental value chains, in addition to the global market; as well as the establishment of robust infrastructure, including QIS, to ensure overall competitiveness of our economies and regions.

102. The main strategic issues identified under Pillar 2 are elaborated as follows:

- (i) Management and sustainable use of natural resources
- (ii) Regional value chain development
- (iii) Infrastructure development

- (iv) QIS development.

Strategic issue 1 – Management and sustainable use of natural resources

STRATEGIC OBJECTIVE:

- (i) Ensure sustained and inclusive growth through management and sustainable use of natural resources.
- (ii) Maximise the commodity value chain linkages opportunities, in line with the AMV.

STRATEGIC ACTIONS:

- (i) Develop and harmonise commodity sector policies and regulations governing the management and sustainable use of natural resources, which should be aligned with continental and global frameworks and instruments/tools with a strong local and regional content and inclusivity dimensions.
- (ii) Empower regulatory agencies at different levels with appropriate tools and systems to effectively implement sector-specific policies and regulations.
- (iii) Build capacity of relevant stakeholders at all levels through the establishment of new and/or strengthening linkages with existing regional and national centres of excellence.
- (iv) Develop platforms for disseminating and sharing market information policies and best practices on management and sustainable use of all natural resource to all stakeholders.
- (v) Promote the use of digital commodity management applications.

Strategic issue 2 – Value chain development

A. Strategic objective:

Promote competitive, inclusive and responsible national and regional value chains to maximise the linkage opportunities and for greater integration into local, regional and continental markets, as well as global markets.

B. Strategic actions:

- (i) Develop regional commodity strategies at the Regional Economic Community (REC) level for both agricultural commodity value chains and mineral commodity value chains.
- (ii) Develop national and regional commodity value chain regulatory frameworks, which recognise regional and local content, aligned with existing continental initiatives (CAADP, AIDA, AMV, etc.), which leverage the opportunities created by the AfCFTA based on the comparative advantages of countries and regions.
- (iii) Prioritise the development of commodity value chains to provide the key feedstocks for African growth, development and intra-African trade, over feedstocks destined for extra-African markets.
- (iv) Create and/or strengthen existing integrated special economic zones (including industrial and agro-industrial parks, export promotion zones, innovation-based

- incubators, technological parks) at national and regional levels, with a focus on commodity value chain development.
- (v) Create, encourage and strengthen frameworks and projects to promote cross-border commodity value chains, through incentives and the removal of tariff barriers and NTBs.
 - (vi) Facilitate the development of local manufacturing, by providing targeted incentive packages (fiscal, regulations, business development services, etc.) to support commodity value chain development.
 - (vii) Create platforms for engagement between government, private sector (commodity producers, inputs suppliers and processors), state entities and other stakeholders in implementing a common vision, policy and strategy. Secure resources to support commodity linkages development.
 - (viii) Adopt digital tools and instruments to optimise the development commodity value chains.

Strategic Issue 3 – Resilient infrastructure development

A. Strategic objective:

Optimise the performance of the commodity value chains through the development of sustainable and integrated requisite infrastructure and improve access to infrastructure.

B. Strategic actions:

- a) Plan, design and implement resilient infrastructure development projects at national, regional and continental levels to facilitate trade, value addition and supplier industries, along the commodity value chains, through innovative financing mechanisms, such as public-private partnerships (PPP) and venture capital funds (VCFs).
- b) Prioritise the development of national components of cross-border infrastructure projects, including existing regional initiatives.
- c) Encouraging cooperation among AU Member States and RECs in attracting investment into the development of sustainable infrastructure to facilitate greater commodity beneficiation and regional value chain development, in line with the objectives of the AfCFTA agreement.
- d) Grant countries or firms access to commodities to leverage favourable financing of infrastructure, mindful of the need for proper resource valuation.
- e) Leverage resource rents, particularly from mineral commodity extraction, to establish infrastructure configured for use by other sectors.
- f) Build and strengthen institutions which provide integrated soft infrastructure in order to simplify and make regulatory frameworks more user-friendly.
- g) Strengthen linkages with regional integration initiatives to create economies of scale for new regional infrastructure investments.

Strategic Issue 4 – Quality Infrastructure systems development

C. Strategic objective:

Promote sustainable production, trade and consumption of value-added products through the development and harmonisation of QIS.

D. Strategic actions:

- a) At the continental level, harmonise quality policy for a coherent regulatory framework with regard to technical barriers to trade by means of TBT/SPS annexes to the AfCFTA protocol on trade in goods.
- b) Promote the establishment of national, regional and continental QIS based on international best practices.
- c) Establish and strengthen quality infrastructure institutions and pan-African platforms such as Pan African Quality Infrastructure (PAQI), in order to improve the competitiveness of the commodity sector.
- d) Promote the establishment of mutual recognition arrangements (MRAs) across the regional economic communities (RECs).
- e) Build the capacity of commodity producers, beneficiators and inputs suppliers on quality standards.

Pillar 3: Governance and enabling environment

103. Governance entails adherence to the rule of law, peace and stability, minimisation of conflict, respect for human rights and inclusivity (gender balance, active engagement of all African citizens, among others) by means of integrated, consistent and predictable policies. It also entails relevant and strong legal institutions (at national, regional and continental levels).

104. An enabling environment is determined by the proper development and implementation of national, regional and continental policies and legislation that enable all stakeholders (both private and public sectors) to play their respective roles in the economy.

105. The absence of proper governance and an enabling environment can lead to countries operating under compromised political and economic conditions. This can result in, amongst other disadvantages, low productivity, inappropriate policies, discretionary application of laws and regulations, corruption, human rights abuses and unsustainable development.

106. In this regard, Pillar 3 covers corporate, political, social, economic and environmental governance of appropriate and predictable policies and legislation pertaining to the commodity value chains.

107. The strategic issues identified under Pillar 3 are categorized into two elements: governance and enabling environment, subdivided as follows:

GOVERNANCE:

- (i) Political and institutional governance.
- (ii) Corporate governance.
- (iii) Social governance and inclusivity.
- (iv) Economic governance.
- (v) Environmental governance.

ENABLING ENVIRONMENT:

- (vi) Policy and legal/regulatory environment.
- (vii) Human rights.
- (viii) Land tenure and distribution.

Strategic issue 1 – Political and institutional governance

A. Strategic objective:

Adherence to effective political governance frameworks for development of commodity value chains.

B. Strategic actions:

- a) Promote meritocratic leadership in the public sector, alongside accelerated skilling of under-represented groups.
- b) Establish and maintain independent and credible legal and political institutions, to ensure the unbiased application of the Rule of Law.
- c) Strengthen the capacity of public institutions to enforce laws and policies concerning the management of commodity resources.
- d) Enforce the laws and regulations through credible and independent institutions and build institutions to monitor and facilitate the development of the commodity value chains.

Strategic issue 2 – Corporate governance

A. Strategic objective:

Design and implement corporate governance frameworks based on best practices.

B. Strategic actions:

- a) Put in place corporate accountability and transparency laws and regulations to ensure good corporate citizenship,
- b) Legislate for corporate social responsibility in line with national and regional development plans.
- c) Promote and enforce appropriate laws (company, labour, occupational and health hazards, unionisation and labour rights).
- d) Promote codes of good business ethics.

Strategic issue 3 – Social governance and inclusivity

A. Strategic objective:

Enhance the inclusive participation of all stakeholders along the commodity value chains.

B. Strategic actions:

- a) Establish mechanisms for inclusive participation along the commodity value chains by all stakeholders.
- b) Promote equitable access and ownership of factors of production, as well as social and economic infrastructure and services.
- c) Develop advocacy programs addressing social issues along the commodity value chains.
- d) Develop, legislate and promote equity practices, taking into account the interests and needs of under-represented and vulnerable groups.

Strategic issue 4 – Economic governance

A. Strategic objective:

- a) Promote and implement economic governance frameworks that support sustainable development.

B. Strategic actions:

- a) Establish and implement sound and transparent public finance management systems.
- b)
- c) Review existing taxation systems and regimes in order to promote economic governance along the commodity value chains.
- d) Implement market integration policies in line with the AU's programme for boosting intra-African trade (BIAT).
- e) Develop and promote continental, regional and local content policies. Develop guidelines for 'Local Content in Africa'.
- f) Formulate, implement and enforce laws to counter money-laundering and illicit financial flows.
- g) Implement transparent and accountable economic policies that promote access for the commodities to national, regional and continental markets.
- h) Promote the use of digital applications to ensure transparency and accountability along the commodity value chains.

Strategic issue 5 – Environmental governance

A. Strategic objective:

- a) Develop, strengthen and adhere to sustainable environmental governance.

B. Strategic actions:

- a) Develop and implement policies, legislation, procedures and practices that encourage conservation and sustainability along the commodity value chains in accordance with international standards.
- b) Develop strategies for mitigation, adaptation and resilience of the commodity sector to climate change.
- c) Establish systems for environmental protection.
- d) Create governance frameworks that respect the human population and the natural ecosystems.
- e) Establish policies and laws that mitigate pollution, promote land restoration and conserve wetlands.

Strategic issue 6 – Policy and legal/regulatory environment

A. Strategic objective:

- a) Ensure the development, implementation and enforcement of sound policy and legal/regulatory frameworks.

B. Strategic actions:

- a) Mainstream the AU Commodity Strategy in national and regional development plans.
- b) Put in place policies to promote the diversification of commodities, through value addition, local content and new sectors, in national and regional development plans.
- c) Promote respect for the Rule of Law and justice systems. Ensure the independence of legal and policy institutions.
- d) Strengthen the capacity of legal and policy institutions (courts, etc.).
- e) Participate in ratifying and domesticating commodity value chains related treaties, agreements and protocols (e.g. the AMV).
- f) Develop policies and legal/regulatory frameworks to promote the digitisation of the commodity value chains.
- g) Prioritise the use of African judicial systems to adjudicate, whenever disputes or human rights violations occur.

Strategic issue 7 – Human rights

A. Strategic objective:

- a) Promote, defend, respect, uphold and enforce human rights along the commodity value chains.

B. Strategic actions:

- a) Protect, defend, respect and remedy the rights of women, children, local communities and other vulnerable or marginalised groups.
- b) Recognise and respect the understanding of cultural and religious nuances in the exploitation of commodities.
- c) Enact laws and mechanisms that promote human rights abuse disclosure and remedial procedures.

Strategic issue 8 – Land tenure and distribution

A. Strategic objective:

Create and implement appropriate mechanisms with regard to land tenure for the sustainable exploitation of commodities.

B. Strategic actions:

- a) Develop effective beneficial land access, ownership laws and rights.
- b) Modernise, digitalise and standardise cadastral systems.
- c) Develop and strengthen regulatory frameworks for purposes of land restoration to address past land dispossession.
- d) Developing policies and effective systems for land evaluation in cases of development-driven expropriation in the public interest to ensure appropriate computation of compensation, where necessary.

Pillar 4: Skills development and R&D

108. Skills development, R&D and technology development are important for value addition, the realisation of the backward linkages, innovation, technology acquisition, and entrepreneurship along the commodity value chains. These can assist in unlocking the potential of commodity value chains in Africa in a sustainable way.

109. The main strategic issues identified under Pillar 4 are elaborated as follows:

- (i) Skilled Labour
- (ii) Entrepreneurship
- (iii) Technology and Innovation

Strategic issue 1 – Skilled labour

A. Strategic objective:

- a) Develop human capital in order to improve the performance along the commodity value chains by enhancing technical capacities, skills portability, and ensuring inclusiveness.

B. Strategic actions:

- a) Undertake training needs assessments, developing and promoting harmonised training programmes at regional and continental levels (vocational and higher level education), as well as putting in place certification frameworks.
- b) Design affirmative actions to ensure the inclusiveness of vulnerable or marginalised groups (including youth, women, and physically challenged persons) along the commodity value chains.
- c) Encourage the creation of specialised tertiary education programmes, in particular, science, technology, engineering and mathematics (STEM).
- d) Develop regional partnerships with regard to training and innovation in support of research.
- e) Provide incentives for private companies and individuals to invest in training, research and innovation.
- f) Promote linkages between research institutions, academia and the private sector to facilitate technology transfer with a view of improving value addition to commodities and commercialisation (mass production of innovation)..
- g) Establish policies that facilitate the development of the manufacturing sector, particularly the commodity value chain inputs suppliers (capital goods, consumables and services, Figure 6, above).
- h) Establish specialised technical centres in the member states and RECs for skills development and technology development to strengthen commodity value chains and diversification.
- i) Establish R&D funds in the member states and RECs.

Strategic issue 2 – Entrepreneurship

A. Strategic objective:

- a) Enhance the capacity of institutions to nurture an entrepreneurial culture for the development and growth of the commodity value chains.

B. Strategic actions:

- a) Build the capacity of institutions to train for and nurture entrepreneurship.
- b) Establish innovative business incubators and accelerators that add value along the commodity value chains and their supplier (inputs) sectors, particularly capital goods producers (machinery, plant and equipment).
- c) Develop and harmonise policy and regulatory frameworks that promote entrepreneurship at national and regional levels.
- d) Enhance the access to finance for entrepreneurs for both working capital and investment capital (opex and capex) for enhanced production along the commodity value chains and for intra-African trade.
- e) Work with the financial sector in developing innovative and appropriate financial instruments, including VCFs, for businesses along the commodity value chains.
- f) Facilitate ease of adding value and doing business along the commodity value chains.

- g) Develop and harmonise schemes that facilitate the formalisation of informal labour markets and micro-, small, and medium enterprises (MSMEs).

Strategic issue 3 – Technology and Innovation

A. Strategic objectives:

- a) Enhance access to cleaner, modern and affordable technologies and encourage adaptation, adoption and reverse engineering.
- b) Provide incentives to foster and incubate innovation to accelerate the development of the commodity value chains in Africa.
- c) Provide opportunities for training and skills development in the use of modern and innovative digital applications along the commodity value chains for the benefit of the African operators.

C. Strategic actions:

- a) Encourage reverse technology engineering, technology transfer, technology adoption and adaptation to suit the needs of local industries.
- b) Promote the use of cleaner technologies and information and communication technology (ICT) along the commodity value chains.
- c) Introduce a R&D and innovation culture concerning commodities in education systems and industries.
- d) Develop mechanisms to link centres of excellence to the development of commodity value chains.
- e) Promote the establishment of community-based training institutions and e-learning platforms for MSMEs and other relevant operators.
- f) Promote the establishment of commodity value chain oriented tech-hubs and start-ups.
- g) Develop the capabilities of member states, including their private sectors, to harness the Fourth Industrial Revolution technologies and leapfrog development challenges along the commodity value chains.

Chapter 4: Enablers for Strategy Implementation

110. There are a number of strategic enablers that will make the implementation of this strategy a success. These will enable it to meet its objectives as stated in Chapter 3. The chapter will therefore highlight the few enablers, as follows:

A. Operational environment

111. The AU Commodity Strategy is one of the fourteen flagship projects under the AU Agenda 2063.. The implementation of the Commodity Strategy must take place in an environment that fosters job creation, poverty eradication, and effectively contributes to the sustainable development of the continent.

112. It is to be noted that this strategy draws from the findings of a number of studies which indicate that that Africa has not really gained much from its rich resource endowment. This should give an impetus for all stakeholders to implement the recommendations espoused in these studies.

A. Political commitment

113. There is certainly a political commitment to the AU Commodity Strategy, as it is one of the flagship projects under Agenda 2063. This will be critical to its effective implementation by all relevant stakeholders. Governments have a responsibility to undertake and accelerate political, economic and fiscal reforms to facilitate the implementation the recommendations from the AU Commodity Strategy.

B. Partnerships

114. This strategy has been developed when there is renewed interest in Africa. Major global players have fully realised that the continent is the next growth frontier, given its vast potentials and resource endowments. There is consequently a growing willingness to partner with Africa in a number of areas, including the development of its commodity value chains. Intra-African partnership is also essential for the development of continental competitive value chains in order to integrate them into global value chains. This strategy will therefore leverage such partnerships, including communities and CSOs to ensure that its implementation is inclusive. Such leveraging will focus on the following, among other approaches:

- (i) Advocacy in various fora at the global, continental, regional, national and sub-national levels.
- (ii) Technical and financial support for implementation of its action plans.

C. Institutions

115. There are a number of institutions, both in Africa and globally, whose work focuses on commodity value chains. In Africa, there are bodies such as the Africa Minerals Development Centre (AMDC), the New Partnership for Africa's Development (AUDA-NEPAD) agency, the AU's Semi-Arid Food Grains Research and Development (SAFGRAD) (agricultural commodities), AU-IBAR (livestock and livestock-related commodities), the Inter African Coffee Organisation (IACO) and the Africa Leather and Leather Products Institute (ALLPI).

116. Globally, there are institutions such as the Common Fund for Commodities (CFC), the International Cocoa Organisation (ICCO) and OPEC, among others. The capacities and capabilities of these institutions can be effectively harnessed to enable the implementation of this strategy.

117. This strategy need to leverage on its operational environment, partnerships, and institutions so as to deliver on its vision and mission.

Chapter 5: Implementation, Monitoring & Evaluation Framework

118. This chapter highlights the implementation, monitoring and evaluation framework for the strategy. This will ensure that the strategic actions are effectively contributing to the attainment of the objectives of this strategy. As such, an Action Plan has been developed to guide the implementation of the strategy.

A. Implementation approach

119. Implementation will be carried out at three levels:

- (i) National
- (ii) Regional
- (iii) Continental

120. The following are the key players in the implementation, the roles and responsibilities of which are defined in the action plan.

- (i) Governments
- (ii) The RECs
- (iii) Private sector
- (iv) Development partners
- (v) Civil society
- (vi) Skills development, R&D institutions
- (vii) Other relevant stakeholders

B. Coordination and Management:

121. The coordination and management of these key players shall be effected by means of appropriate institutional arrangements made by the African Union Commission (AUC) in collaboration with other stakeholders.

122. An implementation report should be submitted to the Specialised Technical Committee (STC).

C. Monitoring and evaluation framework

123. The African Union Commodity Strategy will adapt the integrated M&E framework for Agenda 2063 FTYIP. The primary basis for the implementation of the Agenda 2063 FTYIP M&E framework is determined by a sound planning and operational architecture at national, regional and continental levels.

124. The January 2018 summit of the Union in Addis Ababa, Ethiopia, adopted Agenda 2063 First Ten Year Implementation Plan (FTYIP) and Agenda 2030 integrated Monitoring and Evaluation (M&E) framework and a core indicators' handbook. The summit further directed that the M&E framework and indicators' handbook be rolled out

to member states and RECs to facilitate the tracking and reporting of progress on Agenda 2063 FTYIP and Flagship Projects which include the AU Commodity Strategy. (**Executive Council Decision EX.CL/1165(XXXV) (2)**).

125. 'Implementation, results and impact' are key features of the AU Commodity Strategy and the need for a succinct and concrete layout of an M&E framework and plan is therefore critical at every level. The adopted integrated M&E framework document articulates basic principles and standards for coherent and systematic monitoring and evaluation of the AU Commodity Strategy. It also supports learning approaches and tools within the overall scope of this strategy's execution, delivering and assessing results, as well as the impact and learning that feeds into new plans and policies.

126. The FTYIP M&E Framework translates Africa's development vision and goals into tangible results and outcomes. It also provides the primary and critical basis for the M&E framework for the African Union commodity strategy. The FTYIP M&E framework is thus ideal to serve the following specific purposes of the AU Commodity Strategy:

- (i) Reinforce culture of planning and managing for results.
- (ii) Enhance accountability and shared responsibility among the various participants and stakeholders while compelling alignment and coherence across all stakeholders and players.
- (iii) Foster value-for-money in resource allocation and use.
- (iv) Support design and assessment of regional and continental value to national action.
- (v) Foster evidence-based learning, including generating insights, analysis and new knowledge to inform policies and programmes.

D. Key features and scope:

127. All implementation-related principles and standards will directly and actively apply in terms of the M&E framework. This is relevant to inter- and multi-sectoral as well as inter-governmental principles. Absolute clarity on the main participants and stakeholders, as well as their specific roles and responsibilities, is an essential part of defining the architecture and functioning of the M&E framework.

128. A starting point is to recognise 'national space and action' as the central pillar in delivering the African Union Commodity Strategy. Ultimately, decisions and actions to implement plans and policies is a prerogative of national players, with Member States taking the lead. However, one key feature inherent to the African Union Commodity Strategy is that regional and continental actions are critical components for the sustainable success of national action. The Agenda 2063 FTYIP M&E framework accordingly has the required inherent national, regional and continental continuum.

E. Adapting Agenda 2063 FTYIP M&E implementation arrangements at national level:

129. Although the contexts vary in every country, at the national level, the FTYIP provides a comprehensive framework that broadly encompasses the strategic goals, priority areas and targets, as well as the outcomes, outputs and inputs which are consistent with national development plans and strategies. The key processes, tools and structures required for the successful adaptation of Agenda 2063 FTYIP implementation at the national level will include;

- (i) national development plans;
- (ii) development policies and strategies, including related legislations;
- (iii) national budget, including public-sector budget;
- (iv) sector plans, strategies and budgets; as well as
- (v) Institutional mandates for implementation, including planning and evaluation.

F. Adapting Agenda 2063 FTYIP M&E implementation arrangements at regional level:

130. At the regional level, implementation will mainly be driven by RECs regional development plans and strategies, which underscore the value of primary representation alongside political and technical development priorities. RECs will also provide a unique regional platform through which the alignment of the AU 2063 FTYIP agenda to the regional development plans and strategies, including related sector plans. Strategies can be achieved by developing and embracing the A2063 FTYIP regional M&E plan (31). The efforts to define the A2063 FTYIP regional M&E plan will thus reflect two elements:

- (i) activities, or deliverables which catalyse and facilitate multi-national collaboration and programmes, essentially under the direct implementation of the countries; and
- (ii) initiatives implemented via regional or multi-national agencies.

G. Continental level Agenda M&E implementation arrangements:

131. Continental action, mainly through mainstreaming and alignment; is aimed at complementing national and regional actions in an effort to achieve an integrated, comprehensive, sustainable and transformation success. The operational plan and strategy of the AUC and its technical agencies will provide the basis for mobilising continental action. Other continental actions will include policies, programmes and initiatives, all of which provide a framework for brokering collaboration, and the setting up of strategic partnerships and alliances. This would include financing arrangements; building and sustaining social capital; organising and consolidating to achieve economies of scale; as well as galvanising a stronger and more competitive position in the global geo-political and economic landscape for Africa.

132. The key AU documents in this regard are the “Agenda 2063. Framework Document: The Africa We Want”, the “Agenda 2063. First Ten-Year Implementation Plan:

2013-2023”, the “Agenda 2063. First Ten-Year Implementation Plan – 2013 – 2023: M&E Framework - Practical guidelines on M&E and the “Agenda 2063 Financing, Domestic Resource Mobilization and Partnership Strategy” (DRM)

H. Evaluation

133. The strategy will be deployed in cycles of ten years. Three main evaluations will be undertaken during the first ten years:

- (i) First term independent evaluation after three years of implementation to assess progress on the implementation of activities as planned;
- (ii) Mid-term independent evaluation after five years to assess progress made and provide information to facilitate planning for the transition to the second phase of the strategy; and
- (iii) End-of-cycle independent evaluation after ten years, with a focus on results in line with the results framework.

134. The strategy will also adopt annual internal self-evaluations. The evaluations will be mandatory and conducted using Agenda 2063/2030 Integrated M&E framework guidelines and tools .

I. Monitoring

135. Periodic monitoring and financial reports will be prepared following the Integrated Agenda 2063/2030 M&E framework guidelines and tools.

Anticipated risks and mitigation measures

136. The risks associated with the strategy are outlined in the following table:

Table 2 Africa Commodity Strategy Risk Matrix

RISKS	PROBABILITY	IMPACT	RISK MITIGATION MEASURES/ASSUMPTIONS
Insufficient human and financial resources to meet the demands of stakeholders	Low-medium	High	Establish or strengthen institutional partnerships; use of consultants; attract support through resource mobilisation; prepare a comprehensive resource mobilisation plan.
Isolated measures taken by member states in response to commodity shocks	Low-medium	Medium-high	Prioritise collective approach in managing commodity shocks

RISKS	PROBABILITY	IMPACT	RISK MITIGATION MEASURES/ASSUMPTIONS
Lack of or untimely provision of operational resources to implement strategic activities	Low- medium	High	AU Member States to collectively commit to support operational resources for an initial period of 5 years to secure the start-up; Build the initiatives into established country and regional-level institutions, mechanisms and budgets.
Lack of strong commitment by AU member states and the RECs	Medium-High	High	Full consultation with high-level structures of government in order to identify and prioritise joint activities; operationalise and expand the communication and dissemination strategies..
Uncertain political situations which may lead to delays and disruption	Medium-High	High	Promote good governance and Rule of Law; build strong institutions

Chapter 6: Resource Mobilisation, Financing and Partnership Arrangements

137. The financing, resource mobilisation and partnership arrangements for the African Union Commodity Strategy will be pursued through the implementation of the Agenda 2063 financing, domestic resource mobilisation (DRM) and partnership strategy adopted at the January 2018 AU summit (**Executive Council Decision EX.CL/1165(XXXV) (2)**).

138. The bold targets set by Agenda 2063 require significant levels of sustainable financing from different sources. However, to accommodate domestic ownership, create 'policy space' and minimise dependency on volatile and conditional external funding that has characterised past continental and regional development initiatives, all levels of African stakeholders consulted have opted for a focus, primarily, on domestic resource mobilisation (DRM) for the financing and implementation of Agenda 2063 and its flagship projects. This also applies to priority continental programs, including the African Commodity Strategy.

139. The Agenda 2063 financing and domestic resource mobilisation strategy also takes cognisance past and recent studies and initiatives, including the AU assembly Decision on Financing the Union, and the AUC Resource Mobilisation Strategy.

140. Comprehensive DRM strategy is aligned to Agenda 2063 FTYIP, and outlines specific roles, responsibilities and policy actions to be considered by the AU. RECs and member states are expected to expand and mobilise the targeted financial resources.

141. The DRM is expected to contribute at least 80% to 90% to the financing of Agenda 2063. The remainder of Agenda 2063 will be financed through traditional mechanisms, including the international financial markets, FDI or official development assistance which need also to be leveraged towards increased adoption of African priorities

142. Thus, the financing arrangements of the African Union Commodity Strategy will be articulated around domestic resource mobilisation, Intermediation of financial resources into investment, and access to finance facilitation with details as tabulated below:

Table 3 Financing Agenda 2063 through enhanced DRM

DRM	Intermediation Vehicles	Access to Finance Facilitation
<ul style="list-style-type: none"> • Tax and public revenue. • Tax revenue optimisation. • Natural resource rents maximisation. • Curbing illicit financial flows. • Non-tax public revenue. • Curbing corruption . • Tax expenditure optimisation. • Loss and leakage control in infrastructure services, administrative services, agriculture value chain, etc. • Savings & investment • Retail savings & financial inclusion. • Institutional savings. (pension & insurance funds, sovereign wealth funds, foreign exchange reserves) • Financial/ capital market. • “Rational’ capital flight curbing. 	<ul style="list-style-type: none"> • Exiting intermediation vehicles – commercial. • Commercial banks, MFI, DFI, insurance companies (through up-scaling, capacitation). • Stock exchanges & bond markets (through expansion, deepening & regionalisation). • New vehicles to be created – commercial. • Africa 50 fund, Africa credit guarantee facility (ACGF), Africa investment bank (AIB), Africa infrastructure development facility (AIDF). • Diaspora bonds, diaspora remittances securitisation. • African-owned private equity funds, • African angel investors network (AAIN) • -Intra-African investment promotion & PPPs. • Regional commodity exchanges. • Non-commercial & mixed vehicles. • AU, RECs and member state budgets. • African Integration Fund (AIF) • Fund for African Women. • Youth Empowerment/Entrepreneurship Fund. 	<ul style="list-style-type: none"> • Large PPP/infrastructure and large industrial projects. • Project development fund (PDF). • Viability gap fund (VGF) & generation-based incentives (GBI). • Capitalisation fund. • Risk enhancement. • Micro-, small & medium enterprises. • Capitalisation fund. • Business development fund. • Incubation/accelerator . • Risk-sharing facility. • Grant, TA & concessional finance. • Program/project formulation and execution capacity. • Internal/external audit. • Procurement quality. • Grant management. • Pillar assessment ‘certification. • IPSAS certification.

<ul style="list-style-type: none">• Innovations in DRM.• Intra-African investment.• Intra-African & domestic PPP.• Private sector CSI resources.• Philanthropic resources.• General public / crowd funding.• Continental/regional lottery.• AU (passport, visa, revenue from regional excellence centres)	<ul style="list-style-type: none">• AU-private sector CSI compact;• REC-private sector CSI compact	
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Source: Agenda 2063 Financing, Domestic Resource Mobilization and Partnership Strategy. Addis Ababa : Africa Union Commission, 2017.

Chapter 7: Communicating the Strategy

143. In order for AU member states to take ownership of the AU Commodity Strategy, there is a stringent need to set up a comprehensive communication plan for the popularisation and extensive public awareness of the strategy. This needs to be addressed comprehensively to bring the message to both the policymaking and grassroots levels. In this regard, the AU Commodity Strategy's communication plan is critical as it will outline a communications approach required in the process of mainstreaming and advancing the AU Commodity Strategy agenda.

A. Scope

144. The communication plan will disseminate information about the AU Commodity Strategy, its objectives, benefits, principles and its relevance to African countries.

B. Objectives

145. The main objective of this communication plan is to generate public awareness among stakeholders and high-level African ownership towards the development and implementation of the AU Commodity Strategy. Specific objectives include:

- (i) Promote public awareness of the activities and programs of the AU Commodity Strategy and its integration within AU agenda.
- (ii) Collaborate with the RECs throughout the AU Commodity Strategy's processes..
- (iii) Increase public stakeholders' engagement and understanding of the AU Commodity Strategy..
- (iv) Increase partners' interest, trust, engagement and support for the negotiations, establishment and implementation of the AU Commodity Strategy.
- (v) Encourage support for the AU Commodity Strategy among key stakeholders, including governments, private sector, civil society and NGOs/associations.
- (vi) Maintain an up-to-date maximum public awareness and media presence at the events and activities connected with the Commodity Strategy.
- (vii) Ensure consistent communication of key messages and information in all AU languages.
- (viii) Promote debates, discussions, dialogue and inspire action on AU Commodity Strategy.
- (ix) Motivate participation of and feedback from various stakeholders.

C. Target Audiences

146. The communication plan will target two key aspects:

D. Internal and Related Entities

147. There is a need for the DTI to engage with related departments on its agenda. The AU Commodity Strategy unit should internally coordinate activities with the

AfCFTA unit, the mining unit and other divisions of the department. Most importantly, the AU Commodity Strategy should also coordinate activities with other related AU initiatives such as the AfCFTA; PIDA and the CAADP, amongst others, to ensure consistency and to avoid overlap in the implementation. The Internal audiences include:

- (i) AU member states
- (ii) AU staff
- (iii) All AU organs and agencies
- (iv) The African peer review mechanism (APRM)
- (v) The STC
- (vi) The RECs.

E. External Stakeholders

148. The external audience includes public and private sector organisations on the one hand, and individual citizens in their various groupings on the other. There would be overlaps between target audiences, depending on the message being conveyed. A further segmentation of the external audience is therefore necessary to identify and address the peculiarities and communication needs that may vary between organisations and individuals or groups. The external audience includes:

- (i) African citizens (including women, youth and other vulnerable groups)
- (ii) African diaspora
- (iii) African institutions
- (iv) Private sector
- (v) Civil society
- (vi) Media outlets / sector
- (vii) Think tanks
- (viii) Academics and intellectuals
- (ix) Strategic development partners
- (x) Other institutions and stakeholders.

F. Methodology

Logo/channels/media

149. A logo is part of branding and visual identity. The design of an AU Commodity Strategy's logo is a critical element because it would be the basis/foundation for all other marketing materials: stationery, folders and promotional materials. The AU Commodity Strategy project needs to have a logo that will be branded with the overall AU logo.

150. Key messages need to be identified in order to increase awareness and visibility for the AU Commodity Strategy. This can be achieved by incorporating public information, website and social media usage, as well as the organisation of important events (meetings, workshops, conferences, press lunches/ breakfasts, resource mobilisation, etc.). The tools and activities would fit largely into four categories: written publications (printed materials), audio-visual products (posters, audio and video messages), a dedicated website (www.aucommoditystrategy.org), social media, and events. Media would cover activities related to the AU Commodity Strategy, with the

support of the DTI and in collaboration with the Directorate of Information and Communication. Media advisories, press releases and speeches would be disseminated in a timely manner and press briefings should be conducted at each of the AU Commodity Strategy's events.

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Annex 2

**AFRICAN UNION (AU) COMMODITY
STRATEGY ACTION PLAN**

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GENERAL FRAMEWORK

This Action Plan accompanies the African Union Strategy; and proposes and provides a general framework for implementation of this Strategy by expounding in greater detail on the Strategic Actions outlined in Chapter 3 of the Strategy. The Plan thus:

- lays out the implementation of strategic actions at National, Regional and Continental levels;
- highlights the expected results chain, monitoring and evaluation, as well as resource mobilization; and
- provides information on ongoing initiatives at continental level that are linked to the strategic actions of this Strategy.

Given that the African Union Commodity Strategy is one of the African Union Agenda 2063 Flagship Projects, the monitoring and evaluation framework in this Action Plan, as elaborated in Chapter 5 of the Strategy follows that of the Flagship Projects of the Agenda. It is important to point out that the proposed means of measurement of the results chain borrows from a wide range of both continental and global sources, while giving priority to continental sources.

This framework however refrains from providing specific costing of the Strategic Actions at the National and Regional levels. In addition, given that African Union Member States are at different levels of development in terms of resource endowment, they have the latitude and discretion as to how they can allocate resources to implementation of the Strategy. At the continental level, the Agenda 2063 domestic resource mobilization strategy should provide for the resources required for implementation of the Strategy.

Lastly, implementation of the Action Plan cements the linkages among the various existing African Union flagship programmes and initiatives such as PIDA, AfCFTA, AMV and CAADP. This will encourage synergies and complementarities among AU projects and initiatives.

GOVERNANCE OF THE AU COMMODITY STRATEGY AND ACTION PLAN

The governance and implementation of the African Union Commodity Strategy will be carried out at three levels - continental, regional and national.

(i) Continental level

At the continental level, African Union Heads of State and Government will be responsible for making the final decision on the Strategy. It is recommended that they choose from among themselves a Champion for implementation of the Strategy. These decisions shall emanate from the recommendations of both the Executive Council and the relevant African Union Specialized Technical Committees (STCs) in charge of Trade, Industry, Minerals, Agriculture, Energy, Science and Technology.

In this regard, it shall be necessary to hold joint regular sessions of the STCs of these sectors. The STCs will be responsible for establishing policies, strategic priorities as well as coherent and coordinated approaches for developing and implementing this Strategy. They will also exercise policy oversight and mobilize resources for implementation of the Strategy.

Moreover, to enhance inclusivity and transparency and achieve stakeholder buy-in for the African Union Commodity Strategy, an African Commodity Strategy Advisory Forum should be established, comprising all the stakeholders outlined in this Strategy. Such a forum could meet annually with delegates funded by their respective constituencies.

(ii) At the Regional level

The Regional Economic Communities shall be encouraged to adopt a framework with similar setting as at the Continental level. The RECs Secretariats will coordinate the governance and implementation of the regional aspects of the Strategy and Action Plan. They will also assist in providing technical assistance and the capacities required to implement the Strategy. In addition, they will coordinate the regional aspect in regard to the monitoring and evaluation of the Strategy, including production of implementation reports.

(iii) At the National level

Member States will be responsible for the governance and implementation of the national aspects of the Strategy and Implementation Plan. Member States will determine their own governance and implementation structures. However, they shall be encouraged, wherever possible, to mirror the structures at the regional and continental levels; chief among which will be for Member States to establish an Interdisciplinary Commodities Committees for governance and implementation of the Strategy.

(iv) Coordination and Management of the African Union Commodity Strategy (AUCS)

The AU Commission Department of Trade and Industry would champion implementation of the AUCS. It will, in the first instance, beef up the requisite human resources through the creation of a Commodities Officer position to be formally called Commodities Coordinator. As a second step, an AU Commission Africa Commodities Unit will be established to operate with optimal sizing, presumably under the auspices of the AU Commission DTI. This Unit could have such positions as Chief Commodities Adviser who would be reporting to the Director of Trade and Industry, as well as three Senior Commodities Advisers, each responsible for one of three categories of products covered by the Strategy (agricultural, mining and energy). They would be assisted by a Commodities Programme Officer.

The Commodities Officer will be responsible for developing the Terms of Reference of the proposed Unit and come up with funding mechanisms.

Broadly, the primary functions of the Unit would be to accelerate the realization of the African Union Commodity Strategy, track progress in the Strategy's monitoring and evaluation initiatives and advise the AU Commission structures on progress achieved and the challenges encountered. The Unit shall also be responsible for the coordination of commodity-related issues among other AU Commission Departments including Infrastructure and Energy, Rural Economy and Agriculture, Human Resources, Science and Technology. The Unit would be aided in its work by the African Commodity Task Force as detailed in the Arusha Declaration and Plan of Action on African Commodities.

ACTION PLAN**At National Level**

National Level: Pillar 1

National Table 1 (Pillar 1, Strategic Issue 1: Financing and Capital Markets)**NT1**

Pillar 1: Commodity markets and pricing

Total Cost in US\$:

Strategic Issue 1: Financing and Capital Markets

Objective 1: Develop effective and competitive financial and capital markets

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTI-MATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRES-PONDING/ ONGOING INITIATIVES</i>
Creating supporting policies, harmonising regulatory frameworks and undertaking other necessary actions at national, regional and continental levels for effective and competitive financial and capital markets	Competitive financial and capital markets Improved	Policies for effective and competitive financial system and capital markets in place.	Level/extent of access to financial markets. 50 % of African countries have ratify the strategy document.	National policy documents/progress reports	5 years	Per Country	National core budget and partners	Independent financial institutions and banks
Allowing free movement of capital across the continent (RECs & AU levels)	Liberalisation of financial systems /capital market	Africa capital market framework has issued and activated.	- Number of countries that align with the African harmonised financial regulations for free movement of capital.	National policy documents National statistics of investment transactions	5 years	Per Country	National core budget	Independent financial institutions and banks CFTA

The African capital market rules and regulation are published and disseminated among African countries MS

- Number of countries with free movement regulations.
- Level of intra REC direct investments

Fostering Public-Private Partnerships in building the required financial and capital markets infrastructure	Financial and capital markets infrastructures built	PPP in building capital markets infrastructures.	Number of capital markets infrastructure built	In national documents. Number	5 years	Per Country	PPP	
Establish and/or strengthen DFIs that focus on commodity value chain development	Value of financing along the commodity value chains increased	DFIs established and/or strengthened	Value of DFI financing along the commodity value chains increased	DFI Annual Reports	5-10 years	Per Country	National budgets Financial institutions RECs	AfDB AU initiatives on financial institutions

National Table 2 (Pillar 1, Strategic Issue 1: Financing and Capital Markets)

NT2

Pillar 1: Commodity markets and pricing

Total Cost in US\$:

Strategic Issue 1: Financing and Capital Markets

Objective 2: Minimise risks associated with doing business

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIMEFRAME</i>	<i>ESTI-MATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRES-SPONDING/ ONGOING INITIATIVES</i>
Facilitating ease of doing business and mitigating financial risks.	Low Risk and conducive Investment environment created	Access to credit Trade (import/export) guarantee agencies where they do not exist Ease of doing business institutions (e.g. for credits and loans) Rules and regulations that facilitates business doing	WB ease of doing business index Number of outstanding investment disputes Success rate of investment projects Country credit rating	WB doing business IMF and rating agencies	3 years	Per Country	National budget Private sector	Country level initiatives to improve investment climate RECs, AU & AfDB initiatives

National Table 3 (Pillar 1, Strategic Issue 2: Conducive Environment)

NT3

Pillar 1: Commodity markets and pricing

Total cost in US\$

Strategic Issue 2: Conducive Environment

Objective 1: Create a competitive environment through competition policy and law, building on best practices at national and regional levels

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIMEFRAME</i>	<i>ESTI-MATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRES-SPONDING/ ONGOING INITIATIVES</i>
Establishment of national and regional competition policy and legal institutions in line with the AfCFTA framework, together with an African CET to tackle commodity subsidies and dumping.	Fair market power distributed in the commodity sector in line with the AfCFTA framework	Strong policies that promote competition enacted	Laws Level of conformity of the national policies with the CFTA	National Development plans and strategy documents	5 years	Per Country	National budgets	AfCFTA African CET

National Table 4 (Pillar 1, Strategic Issue 3: Structured Commodity Markets - Commodity Exchanges)

NT4

Pillar 1: Commodity markets and pricing

Total Cost in US\$

Strategic Issue 3 – Structured Commodity Markets - Commodity Exchanges

Objectives:

- a) Functional and reputable Commodity Exchanges (CEs) in all of the major African regions, covering all of the main commodity groups.
- b) Adoption of up-to-date technologies and practices for commodity trading and market data identification and availability.
- c) Establishment of viable regional Common External Tariffs (CETs) and the capacity for effective application, in order to combat unfair competition, particularly that caused by commodity production subsidies in developed countries.
- d) Improved earnings for African commodity producers and economies, by bringing longer term planning and future contracting as a way to stabilise and secure orders and promote good market place behaviour.
- e) Increased intra-regional commodity trading by volume and value, increased earnings for producers, and greater price stability to both sellers and buyers.
- f) Promote digital commodity markets removing “open cry” systems, thereby increasing transparency and increasing access to more players.

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME IN-DICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Investigate the regionalisation of existing functional and reputable African Commodity Exchanges that could serve their wider RECs.	Report outcomes assessed and adopted by the REC	Review report of existing CEs completed	REC CE strategy in place	Member states with existing CEs. RECs and national contact points	12 months		National & REC MSs, private sector & CEs	AfCFTA
Identify suitable locations for establishment of well-functioning regional commodity exchanges in	Suitable locations for CEs, trading all	Identification of locations of CEs in all RECs	REC CE locations identified	Member states lacking in CEs for all their	12 months		National & REC MSs, private sector & CEs	AfCFTA

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
RECs that do not already have a reputable CE or that do not have a CE trading all of the major commodity groups.	the RECs major commodities, identified	to trade in all of its major commodities.		major commodities. RECs and national contact points				
Establish functional and reputable Commodity Exchanges (CEs) in all of the major African regions, covering all of its main commodity groups (agriculture, minerals/metals and energy carriers).	Market transparency and liquidity, price discovery and increased market linkages, trade finance & market information Defined trading procedures & standards	Regional functional and reputable CEs operational. Lower trading costs: increased returns to producers.	Well-functioning African CEs with better and more stable prices to producers. Enhanced intra-regional trade and linkages	RECs, national contact points and existing, expanded or new CEs	3 years		CEs (private sector), Member States with CEs, ODA	AfCFTA
Strengthen market research institutions working in the commodities markets and develop linkages to existing CEs (explore possible connections to exchanges such as ECX or SAFEX as a faster method, to demonstrate increased and fairer selling on open markets, whilst reducing costs).	Enhanced research quality. Enhanced commodity markets research institutions with improved linkages to existing CEs	Commodity markets research institutions strengthened with links to existing CEs	Competent and reputable commodity markets research entities in all RECs	RECs, national contact points and existing CEs	5 years		National & REC MSs, private sector & CEs Partners	The African Trade Observatory

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Organise regional campaigns for mobilising stakeholders and resources and awareness raising of CEs in Africa and of trading practices. Stakeholders: producers, warehouse keepers, traders, brokers and independent clearing house services & inspection providers, etc.).	Enhanced awareness of CEs and of trading practices amongst stakeholders	Regional campaigns undertaken resulting in increased awareness of CEs and of trading practices	Stakeholders mobilised with raised awareness	Stakeholders in each member state, through national contact points and existing CEs	2 years		National & REC MSs, private sector & CEs Partners	
Provide incentives for the private sector to build or strengthen the hard and soft infrastructure needed for the establishment of commodity exchanges linking sellers and buyers more transparently and faster.	Operational CEs: lower trade costs. Enhanced CEs hard and soft infrastructure linking sellers and buyers	National incentives in place and operational. Infrastructure in place.	Improved CE functionality, scope and participation	National contact points and existing CEs	5 years		National & REC MSs, private sector & CEs	
Procure appropriate technology and conduct related training for its use where needed.	Lower trade costs. (technology procured with training undertaken)	Appropriate technology operational and skilling completed	Improved CE functionality, scope and participation	National contact points and existing CEs	3 years		CEs (private sector)	
Work with the Afrexim Bank and Exim banks/ECAs to develop financing instruments for intra-African trade in commodities through functioning and trusted African commodity exchanges.	Increased use of CEs: Lower trade costs. Increased	Commodity trading financial instruments developed & available	Increased intra-African CE trade by CEs using enhanced financing instruments	Afrexim Bank, CEs and national contact points.	2 years		AUC, Afrexim Bank	

<i>STRATEGIC ACTIONS</i>	OUTCOME	OUTPUT	OUTCOME IN- DICATOR	MEANS OF MEASUREMENT	TIME- FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRES- SPONDING/ ONGOING INITIATIVES
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intra-African
trade in CEs
developed

National Table 5 (Pillar 1, Strategic Issue 3: Structured Commodities Markets)

NT5

Pillar 1: Commodity markets and pricing

Total cost in US\$

Strategic Issue 3: Structured Commodities Markets

Objective 2: Strengthen commodity producer associations

<i>STRATEGIC ACTIONS</i>	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ONGOING INITIATIVES
Group and organise producers into associations through awareness campaigns and training incentives.	Enhanced commodity value chains through commodity associations created and/or strengthened	<ul style="list-style-type: none"> - Awareness campaigns undertaken. - Training incentives configured and applied. - Regulations in place. 	<ul style="list-style-type: none"> Number of commodity associations established. Number of association members trained. Value of incentives. 	<ul style="list-style-type: none"> Government reports. Country commodity sectors reports. Commodity association reports. 	3 years	Per country	<ul style="list-style-type: none"> NGOs Private sector National budgets Other stakeholders 	<ul style="list-style-type: none"> Regional and Continental associations (e.g. mines: MIASA, petroleum: African Petroleum Producers Organisation (APPO))

National Table 6 (Pillar 1, Strategic Issue 4: Pricing and price volatility)

NT6

Pillar 1: Commodity markets and pricing

Total cost US\$

Strategic Issue 4: Pricing and price volatility

Objective 1: Establish mechanisms to anticipate and mitigate the impact of price volatility

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Facilitate the adoption of commodity trading and risk management (CTRM) instruments, such as hedging techniques.	Decreased impact of commodity price volatility	Increased use of risk management instruments	Number of states using CTRMs Value of volatility decrease (variance)	National accounts. Professional associations. UNCTAD, ITC-Trademap	12months	Per MS and REC	National Treasuries. Financial institutions. CEs, brokers and traders.	Establishment of African CEs.
Where appropriate, introduce RRT (Resource Rent Tax) instruments (minerals and agriculture) to share in resource rents.	State share of resource rents increased.	RRT instruments and laws in place.	Number of member states with RRT instruments. Value of RRT receipts.	National accounts.	3years	Per MS and REC	National Treasuries.	
Create sovereign wealth funds (SWFs), where relevant, to ameliorate commodity prices downturns (stabilisation funds), and ensure their proper management based on best practices at the global level.	SWFs used to dampen price booms and busts. Robust SWF management in place	SWFs established and receiving RRT flows. Rigorous SWF oversight in place.	Number of member states with SWFs in place. Value of SWFs as a % average commodity export earnings.	National accounts	4years	Per MS and REC	National Treasuries (RRT receipts)	

Efficacy of the
SWFs.

Promote safety-net programs that reduce the effects of price volatility on the economy and vulnerable people	Impact on the economy and vulnerable people reduced	Safety-net programmes configured & operational	Number of recipients. Value of safety-net disbursements.	National accounts	4years	Per MS and REC	National Treasuries.
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National Table 7 (Pillar 7, Strategic Issue 4: Pricing and price volatility – trade mispricing)

NT7

Pillar 1: Commodity markets and pricing

Total cost in US\$

Strategic Issue 4: Pricing and price volatility – trade mispricing

Objective 2: Eliminate trade mispricing and unlawful transfer pricing

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
STRATEGIC ACTIONS	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTI-MATED COST IN US\$	FUNDING MECHANISMS	CORRE-SPONDING/ ONGOING INITIATIVES
Strengthening of relevant national, regional and continental institutions responsible for international trades, such as customs, tax and audit authorities in such a way that they are able and willing to prevent unlawful transfer pricing	Unlawful transfer mispricing eliminated	Relevant institutions strengthened. Requisite customs, tax and audit policies & regulations developed and in place	Number of unlawful operations prevented. Value of transfer mispricing.	Dedicated institution reports Trade and/or fiscal administration reports	3years	Per MS and REC	National budgets	
Where appropriate, working with the OECD/G20 Inclusive Framework on BEPS to curb trade mispricing.	Enhanced ability to combat BEPS through trade mispricing	Greater international cooperation to identify trade mispricing	Value of increased tax receipts	National Treasuries. AfDB	2years	Per MS and REC	National budgets (National Treasuries)	BEPS AU IFFs initiative.

National Table 8 (Pillar 1, Strategic Issue 5 – Commodity producer power)

NT8

Pillar 1: Commodity markets and pricing

Total Cost in US\$

Strategic Issue 5 – Commodity producer power:

Objectives: a) Identify which African commodities could have potential producer power to stabilise prices and build the commodity value chains.

b) Configure cooperative marketing systems to realise producer power, where viable.

a) c) Establish joint marketing systems for the selected commodities to mitigate price volatility and develop their commodity value chains.

Results		Monitoring and Evaluation (M&E)				Financing and Resource Mobilisation		
STRATEGIC ACTIONS	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTI-MATED COST IN US\$	FUNDING MECHA-NISMS	CORRE-SPONDING/ ONGOING INITIATIVES
Facilitate an analysis of African commodities that may have potential producer power through a large share of global production and/or resources, relative demand inelasticity and relative supply inelasticity.	Analysis of African commodities that may have potential producer power completed	Identification of African commodities with potential producer power	African potential producer power commodities list available for interrogation	All member states (contact points), RECs, international dbases	1year	Per MS and REC	National budgets NGOs Partners	AMV +10
Support the configuration of viable joint marketing systems for the selected commodities to realise producer power, including the financing of stockpiles (balance supply/demand) & the equitable distribution of the value chain investments (back- & forward linkages).	Viable joint marketing systems for the selected commodities configured	Joint marketing systems to realise producer power catering for balanced supply-demand and the equitable distribution benefits	African joint commodity marketing systems to realise producer available for interrogation	All member states (contact points), RECs, continental entities (AU, ECA, AfDB, et al), international producer associations (e.g. OPEC)	2years	Per MS and REC	Commodity producers. National budgets. NGOs. Partners/ODA	

Create producer commodity marketing bodies, possibly together with non-African producers, to stabilise prices and leverage value chain investments.	African producer power commodity marketing bodies created	Increased price, BoP stability and value chain investments realised.	Development of the selected value chains, improved and stable prices	All member states (contact points), RECs, partners, producer associations	3years	Per MS and REC	Commodity producers. National budgets. NGOs. Partners/ODA
Develop oversight systems to ensure the proper management of the commodity marketing bodies, based on best practices at the global level.	African producer bodies oversight systems in place.	Positive oversight reports. Clean annual audits of the producers bodies	Good management of the marketing bodies, based on global best practices	Member states (contact points), RECs, partners, African professional auditing associations	3years	Per MS and REC	Commodity producers. National budgets. NGOs. Partners/ODA.

National Level: Pillar 2

National Table 9 (Pillar 2, Strategic issue 1: Management and sustainable use of natural resources)

NT9

Pillar 2: Linkages and Diversification

Strategic Issue 1: Management and sustainable use of natural resources

Total Cost in US\$:

Objective 1: Ensure sustained and inclusive growth through management and sustainable use of natural resources

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING ONGOING INITIATIVES</i>
Develop and harmonise commodity sector policies and regulations governing the management and sustainable use of natural resources, which should be aligned with continental and global frameworks and instruments/tools with strong local and regional content and inclusivity dimensions.	<ul style="list-style-type: none"> - Commodity value added increased. - Inclusive growth and sustainable management of natural resources - local employment and entrepreneurship Increased - Value added of manufacturing goods improved -Economic growth and development, as well as diversification in the commodity sector are improved. 	<ul style="list-style-type: none"> - Commodity sector policies & regulations in place. - Local & regional content, beneficiation, and value addition legislation. - National policies which foster investment into manufacturing, production and technological capabilities of member states - Emergence of local/regional 	<ul style="list-style-type: none"> - Percentage of value added products traded (e.g. an increase of 5% from the baseline) - The level of equitable benefits sharing from the natural resources -Extent of jobs created from the use of natural resources -Percentage increase of value added manufacturing 	Annual reports, progress report, and economic survey reports etc.	5 years	Per country	National core budget and development partners	DFIs and Commercial banks RECs

STRATEGIC ACTIONS	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING ONGOING INITIATIVES
		value chains and linkages.						
Empower regulatory agencies at different levels with appropriate funding, tools and systems to effectively implement sector-specific policies and regulations, through capacity building, training; skills development and technology transfer.	- Efficient and effective use of natural resources - Revenue collection from the natural resources sector - Improved value addition in the commodity sector.	- Capable regulatory agencies. - Regulatory reforms in order to support the work of the regulatory agencies.	- The fiscal revenue from the commodity sector increased by 20% -Transparency index gains.	National annual reports, progress reports and economic surveys	5 years	Per country	National core budget and development partners	DFIs and Commercial banks RECs
Build capacity of relevant stakeholders at all levels through the establishment of new or strengthened linkages with existing regional and national centres of excellence.	- Efficient and effective use of natural resources. - Inclusive involvement of stakeholders in natural resource management and utilisation.	- Linkages with existing national and regional centres of excellence, (information sharing). -Training, workshops, and seminars to build capacity of relevant stakeholders	- Percentage of fiscal revenue from the commodity sector -Transparency index	National: annual reports, progress reports and economic surveys	5 years	Per country	National core budget and Development partners	DFIs and Commercial banks

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING ONGOING INITIATIVES</i>
Develop platforms for disseminating and sharing market information, policies and best practices on management and sustainable use of all natural resource to all stakeholders.	-Ease of market access -Increased business collaborations/synergies	-Platforms where government meets with stakeholders -Private sector associations and Chambers of commerce, industry & mines.	- Level of increase in trade volume.	National: annual reports, progress reports and economic surveys	5 years	Per country	National core budget and Development partners	DFIs and Commercial banks
Promote the use of digital commodity management applications	-Ease of market access -Increased business collaborations/synergies	Digital commodity management applications	-Level of increase in trade volume - Time to make a trade. - LPI (logistics performance index: WB)	National: annual reports, progress reports and economic surveys LPI	5 years	Per country	National core budget and Development partners	DFIs and Commercial banks

National Table 10 (Pillar 2, Strategic Issue 2: Value Chain development)

NT10

Pillar 2: Linkages and Diversification

Strategic Issue 2: Value Chain development

Total Cost in US\$:

Objective 1: Promote competitive, inclusive and responsible national and regional value chains to maximise the linkage opportunities and for greater integration into local, regional and continental markets, as well as global markets.

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ONGOING INITIATIVES</i>
Develop regional commodity strategies at the Regional Economic Community (REC) level for both agricultural commodity value chains and mineral commodity value chains.	Increased value addition and linkages realisation along each regional commodity value-chain. Greater scale economies realised.	- Key regional commodity value chains mapped for each REC. - Development strategies in place for all REC key commodity chains.	- Number of value chains mapped with strategies. - Value & volume of production. - Value of value addition. - Value of local-regional content. - Value of import displacement.	National accounts. UNCTAD, ITC Trademap. National statistics. REC statistics	2years	Per country & REC	National budgets. Partners. Commodity producer associations (e.g. Chambers of mines)	AU AMDC AMV regionalisation (RMVs) REC FTAs. AfCFTA Afrexim Bank
Develop national and regional commodity value chain regulatory frameworks, which recognise regional and local content, aligned with existing continental initiatives (CAADP, AIDA, AMV, etc.), which leverage the opportunities	- Competitive and inclusive national and regional value chains. - Commodity value chain development regulatory frameworks in place & operational.	- Policies and strategies on commodity values chains established, which are aligned to regional and continental initiatives (CAADP,	- Level of increase in trade volume in commodity products -Level of diversification.	National: annual reports, progress reports and economic surveys. National statistics.	5 years	Per country & REC	National core budget and Development partners	DFIs and Commercial banks

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ONGOING INITIATIVES
created by the AfCFTA based on the comparative advantages of countries and regions.	- Increased local/regional content along value chains. - Greater intra-African trade and investment.	AIDA, AMV/RMV, etc.).	-Level (value) of linkages in value chains (local content and beneficiation)	REC statistics				
Prioritise the development of key commodity value chains (to provide the feedstocks for African growth, development and intra-African trade), over feedstocks destined for extra-African markets.	- Enhanced market connectivity - Increased FDI and DDI. - Increased industrialisation and technological advancement.	- Policies and legislation on integrated Special Economic Zones (SEZs) in place. - Integrated SEZs established & operational.	- Value of new investments. - Number of new jobs created. - Value of increased in trade volume in value added products	- National: annual reports, progress reports and economic surveys. National statistics. REC statistics UNCTAD, ITC Trademap	5 years	Per country & REC	National core budget and Development partners	DFIs and Commercial banks
Creating, encouraging and strengthening of frameworks that will facilitate the development of cross-border value chain projects in the manufacturing and industrial sector (including the 4 th IR technology)	-Competitive and inclusive national and regional value chains developed. -Investments in cross-border industrial value chain enhanced. - Cross-border logistics costs lowered.	- Cross-border industrial development cooperation instruments (e.g. MOUs, agreements etc.) on value chain development projects. - List of priority cross-border value chain industrial projects	- Number of cross-border industrial projects. - Value of new investments (FDI & DDI). - LPI value.	- National: annual reports, and progress reports. Multilateral indices	5 years	Per country & REC	National core budget and Development partners	DFIs and Commercial banks

Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation			
<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ONGOING INITIATIVES</i>
Create, encourage and strengthen frameworks and projects to promote cross-border commodity value chains, through incentives and the removal of tariff barriers and NTBs.	<ul style="list-style-type: none"> - Ease of market access. - Increased business collaboration & synergies (B2B, private sector associations and chamber of commerce). - Increased intra-REC and intra-African trade within commodity value chains. 	<ul style="list-style-type: none"> - Platforms & institutions for engagement between government, private sector and academia - Incentives configured and available. 	<ul style="list-style-type: none"> - Value of increase in trade volume. - LPI ratings. - Value of incentives disbursed. 	National: annual reports, progress reports and economic surveys	5 years	Per country & REC	National core budget and Development partners	DFIs and Commercial banks AfCFTA REC FTAs
Facilitate the development of local manufacturing, by providing targeted incentive packages (fiscal, regulations, business development services, etc.) to support commodity value chain development.	<ul style="list-style-type: none"> - Ease of market access - Increased business collaboration/synergies (ecommerce) 	<ul style="list-style-type: none"> - Policies and regulations for the digital management of commodities. - Training and capacity building on digital technological management of commodities. - Enabling infrastructure for the digital management 	<ul style="list-style-type: none"> - Level of digitisation. - Value of incentives disbursed. - Value of extra-African import displacement. - Value of benefited commodity exports. 	National: annual reports, progress reports and economic surveys. UNCTAD, ITC Trademap Multi-lateral dbases.	5 years	Per country & REC	National core budget and Development partners	DFIs and Commercial banks
Create platforms for engagement between government, private sector (commodity producers, inputs suppliers and processors), state entities and other stakeholders in implementing a common	<ul style="list-style-type: none"> - Increased collaboration between state and private sector on commodity value chain development (PPPs). 	<ul style="list-style-type: none"> - Common commodity value chain development visions, policies and strategies in place. - Platforms/forums established. 	<ul style="list-style-type: none"> - Number of PPP engagements. - Value of PPP projects. - Number of adopted visions/strategies/policies 	National: annual reports, progress reports and economic surveys.	2 years	Per country & REC	National core budget. Private sector. Development partners	REC and Continental visions, strategies & policies (e.g. AMV/RMV,

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ONGOING INITIATIVES</i>
vision, policy and strategy. Secure resources to support commodity linkages development.	- Increased resources for commodity linkages development.		- Value of resources for commodity linkages development.					Malabo, CAADP)

National Table 11 (Pillar 2, Strategic Issue 3: Resilient infrastructure development)

NT11

Pillar 2: Linkages and Diversification

Strategic Issue 3: Resilient Infrastructure development

Total Cost in US\$:

Objective 1: Optimise the performance of the commodity value chains through the development of sustainable and integrated requisite infrastructure and improve access to infrastructure.

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ ONGOING INITIATIVES
Plan, design and implement resilient infrastructure development projects at national, regional and continental levels to facilitate trade, value addition and supplier industries, along the commodity value chains, through innovative financing mechanisms, such as public-private partnerships (PPP) and venture capital funds (VCFs).	<ul style="list-style-type: none"> - Ease of doing business facilitated - Commodities value chain infrastructure improved. - Performance of the commodity sector improved/ optimised. - Value addition and local-regional content enhanced. - Intra-African trade along the commodities value chains increased. 	<ul style="list-style-type: none"> - PFSs & Feasibility studies identifying commodity nodes completed. - Integrated sustainable infrastructure-industry master plans developed. - Resilient infrastructure developed - Resource mobilisation plan completed. - PPP & VCF financing utilised. - Lower logistics costs. - Enhanced Ease of Doing Business. - Greater intra-African trade. 	<ul style="list-style-type: none"> - % reduction in transaction costs. - LPI increased by 20%. - Ease of Doing Business lowered by 20%. - Intra-African trade in commodity value chain products increased by 50%. 	<ul style="list-style-type: none"> National: annual reports, progress reports and economic surveys. REC stats. AfDB & ECA stats. - Doing business indicator reports (Ease of Doing Business Index). LPI dbase. UNCTAD, ITC Trademap dbase. PICI updates 	5 years	Per country	National core budget and Development partners	<ul style="list-style-type: none"> BIAT Action Plan and the AfCFTA Agreement PIDA

<p>Prioritise the development of national components of cross-border infrastructure projects, including existing regional initiatives.</p>	<ul style="list-style-type: none"> - Ease of doing cross-border business facilitated - Performance of the commodity sector improved/ optimised. 	<ul style="list-style-type: none"> - Priority cross-border infrastructure projects list developed. - Feasibility studies on cross-border infrastructure projects (for Commodity nodes) done. - Integrated Cross-border infra-structure-industry sustainable master plans completed. - Resilient cross-border infrastructure projects developed. - Resource mobilisation plans in place. 	<p>- % realisation of PIDA PICI projects</p> <ul style="list-style-type: none"> - Investment in cross-border infrastructure for commodity value chains trade up by 20%. - Cross-border infrastructure costs decreased by 20%. - Cross-border trade up by 20%. 	<p>National: annual reports, progress reports and economic surveys. Doing business indicator reports. LPI Index dbase. UNCTAD, ITC- Trademap dbase. AfDB & ECA stats.</p>	<p>5 years</p>	<p>Per country</p>	<p>National core budget and Development partners</p>	<p>CFTA & BIAT PIDA</p>
<p>Encourage cooperation among AU MSs and RECs in attracting investment into sustainable infrastructure to facilitate greater commodity beneficiation, local content and regional value chain development, in line with the objectives of the AfCFTA.</p>	<ul style="list-style-type: none"> - Investment (both domestic and FDI) into requisite resilient infrastructure increased. - Greater commodity bene-ficiation, local content and regional value chain development. 	<ul style="list-style-type: none"> - Industrial and investment policies and cooperation frameworks in place and approved. - National Investment Promotion Agencies (IPA) established/ strengthened. 	<ul style="list-style-type: none"> - Investment in commodities infrastructure, between African countries increased by 20%. 	<p>National: annual reports, progress reports and economic surveys. REC stats.</p>	<p>5 years</p>	<p>Per country & REC</p>	<p>National budgets RECs and Development Partners</p>	<p>DFIs and Commercial banks PIDA</p>

Encourage, where applicable, transparent and accountable investment protocols in relation to infrastructure projects development with commodity seeking firms or countries, which support value chain development in line with the AU AfCFTA Decisions.	<ul style="list-style-type: none"> - Commodities diversification (value addition & local content) promoted. - Reduced illicit financial flows in infrastructure investments. - Infrastructure investment facilitated by commodity buyers increased. 	<ul style="list-style-type: none"> - Packaging of incentives to encourage investors for beneficiation and local content in commodity value chains. - Valuation of economic resources and allocation of predetermined value for financing of infrastructure projects 	<ul style="list-style-type: none"> - Levels of diversification increased for beneficiation & local content. - Amount of illicit flows in infrastructure reduced. 	National: annual reports, progress reports and economic surveys. Regional reports and surveys.	5 years	Per region	National budgets RECs and Development Partners	The Africa Mining Vision
Grant countries or firms access to commodities to leverage favourable financing of infrastructure, mindful of the need for proper resource valuation.	<ul style="list-style-type: none"> - Simplified and business friendly regulatory frameworks. - Infrastructure investments increased. 	<ul style="list-style-type: none"> - Capacity building of institutions which provide integrated soft infrastructure. - “Infrastructure4commodities” Model Offset Agreement developed and available. 	<ul style="list-style-type: none"> - Better ease of doing business index. - Greater infrastructure investment. - Number of offset agreements. 	National: annual reports, progress reports and economic surveys. Ease of Doing Business Index.	5 years	Per country	National core budget and Development partners	The Africa Mining Vision
Leverage resource rents, particularly from mineral commodity extraction, to establish infrastructure configured for use by other sectors (Third Party Access).	<ul style="list-style-type: none"> - Improved economies of scale at national and regional level. - Introduction of resource rent tax instruments (RRT). - Enhanced infrastructure. 	<ul style="list-style-type: none"> - Inclusion in national development plans of regional plans, initiatives, strategies etc. - RRT instruments adopted. - Increased RRT revenues invested in infrastructure. 	<ul style="list-style-type: none"> - % of 3rd party utilisation of resource infrastructure. - Resources infrastructure projects value. 	National: annual reports, progress reports and economic surveys.	5 years	Per country	National core budget and Development partners	The Africa Mining Vision

Build and strengthen institutions which provide integrated soft infrastructure in order to simplify regulatory frameworks and make them more user-friendly.	<ul style="list-style-type: none"> - Increased use of integrated soft infrastructure. - Simpler & user-friendly regulatory frameworks. - Stronger integrated soft infrastructure entities. 	<ul style="list-style-type: none"> - Ease of infrastructure provision enhanced. - Regulatory frameworks simplified. 	<ul style="list-style-type: none"> - Investment in resilient infrastructure increased by 20%. - Time to navigate regulatory systems decreased by 20% 	National: annual reports, progress reports and economic surveys. Ease of Doing Business Index.	3 years	Per country	National core budget and Development partners	PIDA Projects
Strengthen linkages with regional integration initiatives to create economies of scale for new regional infrastructure investments.	<ul style="list-style-type: none"> - Regional infrastructure scale economies projects increased. - Increased investment in infrastructure. 	<ul style="list-style-type: none"> - Regional scale economies infrastructure projects realised. 	<ul style="list-style-type: none"> - Number and value of regional infrastructure projects increased by >20%. 	National: annual reports, progress reports and economic surveys. REC stats.	5 years	Per country & REC	National core budget and Development partners DFIs	

NT12

Pillar 2: Linkages and Diversification

Total Cost in US\$

Strategic Issue 4 – Quality Infrastructure systems development

Objectives: Promote sustainable production, trade and consumption of value-added products through the development and harmonisation of QIS.

National Table 12 (Pillar 2, Strategic Issue 4: Quality Infrastructure systems development)

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ ONGOING INITIATIVES

At the continental level, harmonise quality policy for a coherent regulatory framework with regard to technical barriers to trade by means of TBT/SPS annexes to the AfCFTA protocol.	- Continental harmonised policy framework in place. - Improved quality of products and ease of trade at national and regional levels	- National quality policy on Technical Barriers to Trade developed, in line with continental framework - Strengthening the QIS systems of the respective of Bureaus of Standards.	- Enhanced level of quality of products. - Greater ease of trade.	National: annual reports, progress reports and economic surveys. REC stats. AU ARSO data.	5 years	Per country	National core budget and Development partners	PAQI initiatives ARSO initiatives
Promote the establishment of national, regional and continental QIS based on international best practices.	- Sustainable production, trade, and consumption of value added products increased	- National QIS developed. - Increased in trade of value added products	- Increased in trade and consumption of value added products of 20%.	National: annual reports, progress reports and economic surveys. ITC Trademap	5 years	Per country	National core budget and Development partners	PAQI BIAT
Establish and strengthen quality infrastructure institutions and pan-African platforms such as Pan African Quality Infrastructure (PAQI), in order to improve the competitiveness of the commodity sector.	Sustainable production, trade and consumption of value added products improved	- Quality infrastructure institutions (National Bureaus of Standards) established and/or strengthened.	- 20% increase in trade in value added commodities	National: annual reports, progress reports and economic surveys. ARSO data PAQI data	5 years	Per country	National core budget and Development partners	ARSO PAQI
Promote the establishment of mutual recognition arrangements (MRAs) across the regional economic communities (RECs).	Improved mutual recognition arrangements among RECs	Mutual recognition arrangements among RECs established. MS laws/regulations for regional mutual recognition in place.	Number of mutual recognition arrangements.	MSS RECs (regional level)	5 years	Per REC	REC budgets Development Partners	PAQI

Build the capacity of commodity producers, beneficiators and inputs suppliers on quality standards.	- Improved market access for producers, beneficiators and inputs suppliers.	-Training, workshops and seminars on quality standards for value chain players. - Enhanced value chain skills.	- Increased trade in volume & value along the value chains.	National: annual reports, progress reports and economic surveys	5 years	Per country	National core budget and Development partners	PAQI
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National Level: Pillar 3

National Table 13 (Pillar 3, Strategic Issue 1: Governance - political and institutional governance)

NT13

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 1 on Governance: political and institutional governance

Objectives: Promote adherence to effective political governance frameworks

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ ONGOING INITIATIVES
Promote meritocratic leadership in the public sector for good governance of the commodity value chains	Meritocratic leadership in the public sector established.	Meritocratic policies in the public sector	Improved public service delivery. Optimised commodity value chains	National policy documents/progress reports.	5 years	Per country	National core budget and partners	Public-private sector partnerships
Establish and maintain independent, legal and political institutions to ensure the Rule of Law	Independent, legal and political institutions established.	Independent, legal and political institutions. Institutionalisation of Independent, legal and public entities.	Number of well-governed national entities	National policy documents/progress reports. Auditor General Reports	5-10 years	Per country	National core budget	Independent institutions APRM

Strengthen the capacity of public institutions to enforce laws and policies for the management of commodity resources; enforce the law through credible and independent institutions to monitor the activities	Enhanced public sector delivery. Capacity of public institutions strengthened	Empowered public institutions	Level/quality of service from public institutions improved. APRM Ibrahim index of African Governance (IIAG) Afro-Barometer Resource Governance Index (NRGI). World Governance Index (WGI)	Number of public officials and independent institutions capacitated. APRM Ibrahim index of African Governance (IIAG) Afro-Barometer Resource Governance Index (NRGI). World Governance Index (WGI)	5-10 years	Per country	National budget, private institutions, international partners	Public-private sector partnerships APRM IIAG
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National Table 14 (Pillar 3, Strategic Issue 2 on Governance - Corporate governance)

NT14

Pillar 3: Governance and Enabling Environment

Strategic Issue 2 on Governance: Corporate governance

Objectives: Design and implement corporate governance frameworks based on best practices

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ ONGOING INITIATIVES

Put in place corporate accountability and transparency laws and regulations to ensure good corporate citizenship	Corporate laws and regulations formulated.	Policies on corporate governance in place.	Corporate citizenship Improved. Clean audit reports. Resource Governance Index (NRGI). King IV ratings	Level of corporate accountability and transparency. Resource Governance Index (NRGI). EITI Reports.	5 years	Per country	National budget	EITI
Promote and enforce appropriate laws (company, labour, occupational and health hazards, unionisation and labour rights)	Appropriate laws (company, labour, occupational and health hazards, unionisation and labour rights) promoted and enforced.	Improved corporate governance and social responsibility	Laws and regulations in place. Progress reports on company activities.	Number of National laws & regulations in place. CSR indices. Audit reports. WCGI.	5 years	Per country	National budget	AU AMV
Promote codes for good business ethics.	Codes of good business ethics promoted	Codes of business ethics	Improved social responsibility	CSR indices. World Corporate Governance Index (WCGI) as appropriate	5 years	Per country	National and private sector budgets	

National Table 15 (Pillar 3, Strategic Issue 3: Governance - Social governance and inclusivity

NT15

Pillar 3: Governance and Enabling Environment

Total Cost US\$

Strategic Issue 3 on Governance: Social governance and inclusivity

Objectives: Enhance social and inclusive participation of all stakeholders in the commodity sector

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Establish mechanisms for inclusive participation by all stakeholders in the commodity sector	Mechanisms for inclusive participation by stakeholders established.	Stakeholder engagement forums. CSR audits	Improved participation of various stakeholders	Frequency of stakeholder engagements. CSR indices	5 years	Per country	National and private sector budget	SDGs
Promote equitable access to and ownership of factors of production, as well as to social and economic infrastructure services.	Equitable access and ownership of factors of production promoted.	Equitable access and ownership of factors of production.	Access and ownership of factors of production.	National reports and documents Extent of access and quantum of ownership.	5- 10 years	Per country	National and private sector budget	SDGs
Develop advocacy programs addressing social issues in the commodity sector	Advocacy programs on social issues developed.	Advocacy on social issues operational.	Programmes on social issues. Ranking on CSR indices.	Extent of engagements on social issues. CSR Indices.	5 years	Per country	National and private sector budget	APRM
Develop, legislate and promote equity practices, taking into account the interests	Enhanced equity.	Legislation on equity practices for, women, youth and other	Legislation and promotional activities.	Extent of access to legislation on equity practices.	5 years	Per country	National budget	APRM

and needs of vulnerable groups

vulnerable groups developed and in place.

CSR Indices.
NRGI.

National Table 16 (Pillar 3, Strategic Issue 4: Governance - Economic governance)

NT16

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 4 on Governance: Economic governance

Objectives: Promote and implement economic governance frameworks that support sustainable development

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Establish and implement sound and transparent public finance management systems	Sound and transparent public finance management systems established	Implementation of sound and transparent public finance management systems	Public finance management systems. Clean audit reports. Ranking on independent public finance management rating organisations	Number of systems in place. NRGI data EITI data Transparency International data. AfDB data.	5-10 years	Per country	National and private sector budget	APRM

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Negotiate and implement fair and equitable FDI, agreements, contracts, leases and concessions in the commodity sector.	Increased benefits to Africa from fair and equitable investment agreements	Fair FDI agreements and contracts in the commodity sector negotiated and implemented.	Number of fair investment Agreements and Contracts	National policies on investment. NRGI. WCGI. AU AMDC.	5-10 years	Per country	National and private sector AfDB – ALSF (African Legal Support Facility) Connex Partners	Pan African Investment Code (PAIC)
Reviewing existing taxation systems and regimes in order to promote economic governance in the commodity sector.	Existing taxation systems and regimes reviewed.	Modern taxation systems and regimes. Greater share of resource rents collected.	Functional taxation systems and regimes. RRT instruments established. Tax receipts from commodities sector.	Extent of tax regime modernisation. “Paying Taxes” annual reports. Tax Offices	5-10 years	Per country	National budgets	Independent institutions & developmental partners. APRM
Implement factor market integration policies in line with AU’s Boosting Intra-African Trade (BIAT) cluster.	Factor market integration policies on AU’s BIAT cluster implemented.	Domestication of Factor Market Integration cluster of BIAT.	Increased volumes of trade in goods and services Implementation of national policies on	ITC Trademap National trade data	5-10 years	Per country	National budgets and private sector.	AU BIAT Action Plan and AfCFTA

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Develop and promote continental/regional local content policies ³²	Continental/regional and local-regional content policies developed. Imports displacement.	Local-regional content policies. Increased visibility of locally produced goods.	Factor Market Integration cluster of BIAT. Improved BoP for the commodity sector. Number of MSs with local & regional content regulations in place. Quantities of locally produced goods.	National statistics. MS local-regional content compliance offices. UNCTAD, ITC-Trademap data.	5-10 years	Per country and REC.	National and private sector budget. RECs data	AIDA and AMV
Formulate, implement and enforce laws to counter money laundering and illicit financial flows	Enhanced revenue collection	Unified laws to counter money laundering and illicit financial flows formulated and applied. Implementation of policies on money laundering and illicit financial flows	Value of increased tax revenues. Value of BoP impact	National Taxation Office/Authority National Bank data	5-10 years	Per country	National budget	IFF Initiatives
Implement transparent and accountable economic	Access to national, regional and	Transparent and accountable economic policies implemented.	Value of increased market access	National	5-10 years	Per country	National budget	AfCFTA

³² Develop guidelines for local content in Africa

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
policies that promote access to national, regional and continental markets of commodities.	continental commodity markets		for commodities	International and African CEs data. ITC-Trademap data				

National Table 17 (Pillar 3, Strategic Issue 5: Governance - Environmental governance)

NT17

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 5 on Governance: Environmental governance

Objectives: Develop, strengthen and adhere to sustainable environmental governance

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Develop and implement policies, legislation, procedures and practices that encourage conservation and sustainability in the commodity sector in accordance with international standards	Enhanced conservation and sustainability in the commodity sector	Procedures and practices that encourage conservation and sustainability in the commodity sector operational.	Number of policies and procedures introduced Ranking on independent environmental & sustainability indices	National reports & data . Environmental Sustainability Index (ESI). Environmental Performance Index (EPI)	5-10 years	Per country	National budget	UN SDGs ISO 14000
Develop strategies for mitigation, adaptation and resilience to climate change of the commodity sector	Enhanced mitigation, adaptation and resilience to climate change of the commodity sector	Strategies for mitigation, adaptation and resilience to climate change developed	Number of laws & regulations Ranking on independent climate change & sustainability indices	National policies & documents Environmental Sustainability Index (ESI). Environmental Performance Index (EPI)	5-10 years	Per country	National budget	UN SDGs

			GHG emissions from the commodities sector	Other international indices				
Establish systems for environmental protection	Enhanced environmental protection.	Environmental protection systems in place.	Improved environmental protection metrics	National compliance authorities Ranking on environmental indices.	5 years	Per country	National budget	AU initiatives SDGs Ramsar International initiatives
Create governance frameworks that respect the human population as well as the natural ecosystem.	Enhanced respect for the human population and the natural ecosystem	Frameworks that respect human population and the natural ecosystem in place	Human development indices Environmental sustainability indices. Number of frameworks in place.	MS compliance authorities Environmental Performance Index (EPI). UNDP HDI	5 years	Per country	National budget	AU initiatives UN SDGs Independent institutions
Establish policies and laws that mitigate pollution, promote land restoration and conserve wet lands	Improved pollution mitigate, land restoration and conservation of wetlands.	Policies on pollution, land restoration and conservation of wetlands	Decreased pollution indices. Area of land restored & wetlands conserved.	National stats. Independent monitoring agencies. Ramsar	5 – 10 years	Per country	National budget	RAMSAR ICUN WWF UNDP

National Table 18 (Pillar 3, Strategic Issue 6: Enabling Environment - Policy and legal/regulatory environment)

NT18

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 6 on Enabling Environment: Policy and legal/regulatory environment

Objectives: Ensure the development, implementation and enforcement of sound policy and legal/regulatory frameworks

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Mainstream the AU Commodity Strategy in national development plans	Increased beneficial impact of African commodity value chains	AU Commodity Strategy in national development plans mainstreamed	AU Commodity Strategy localised	National focal points MS reports	5-10 years	Per country	National budget	AMV domestication.
Strengthen the capacity of legal and policy institutions. (Courts, etc.)		Capacity of legal and policy institutions strengthened Capacity building programmes for legal institutions configured and operational.	Number of capacity building activities/initiatives	MS reports & data	5-10 years	Per country	National budget and development partners	IDLO programmes. Independent institutions
Prioritise the use of African judicial systems to adjudicate whenever disputes or human rights violations occur.	Improved and fairer adjudication. Enhanced African legal integrity	African judicial systems prioritised to adjudicate whenever disputes or human rights violations occur	Frequency of use of African judicial systems. Number judicial systems implemented.	National reports/data. African judicial systems data.	5-10 years	Per country	National budget	APRM

National Table 19 (Pillar 3, Strategic Issue 7: Enabling Environment - Human rights)

NT19

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 7 on Enabling Environment: Human rights

Objectives: Promote, defend, respect, uphold and enforce human rights in the commodity sector

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Protect, defend, respect and remedy the rights of women, children, local communities and other vulnerable groups	Rights of women, children, local communities and other vulnerable groups protected.	Laws and regulations that protect the rights of women, children, local communities and other vulnerable groups in place.	Number of legal documents /policies Frequency of violations	National stats/data. African Commission on Human and Peoples' Rights ISHR. Human Rights Watch (HRW). Global Voices. Media reports.	5-10 years	Per country	National budget and development partners	AU Banjul Charter. AU Maputo Protocol. AU ACRWC. Independent institutions
Recognise and respect the understanding of cultural and religious nuances in the exploitation of commodities.	Increased recognition of cultural and religious nuances.	Policies, laws and regulations on cultural and religious nuances in the exploitation of commodities	National policies and public pronouncements. Number of infringements.	National data. African Commission on Human and Peoples' Rights ISHR. Human Rights Watch (HRW). NRG	5 -10 years	Per country	National budget and development partners	AU Banjul Charter. Independent institutions

Enact laws and regulations that promote the disclosure of human rights abuse and establish remedial procedures	Decrease in human rights abuses	Laws and regulations that promote human rights abuse disclosure and remedial procedures in place	Laws & regulations in place. Number of human rights abuses reported.	National data. African Commission on Human and Peoples' Rights. ISHR. Human Rights Watch (HRW). Media.	5-10 years	Per country	National budget and development partners	AU African Charter on Human and Peoples' Rights. Independent institutions
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National Table 20 (Pillar 3, Strategic Issue 8: Enabling Environment - Land tenure and distribution)

NT20

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 8 on Enabling Environment: Land tenure and distribution

Objectives: Create and implement appropriate mechanisms with regard to land tenure for sustainable exploitation of commodities

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Develop effective beneficial land access, ownership laws and rights	Enhanced beneficial land access, ownership laws and rights	Land ownership laws and rights in place.	Laws operational. Number of people benefitting.	National stats & data.	5-10 years	Per country	National budget	N/A

Modernise and digitalise cadastral systems.	Efficacy of cadastral systems improved.	Modern digitised cadastral systems operational.	Usage of the cadastral system. Speed of usage.	National stats & data.	10 years	Per country	National budget	AMV
Develop and strengthen regulatory frameworks for purposes of land restitution to address past injustices and land dispossession.	Enhanced land restitution to address past injustices and land dispossession.	Land laws and policies in place	Number of people benefiting from restitution. Area of land restituted.	National stats & data. Government reports	10 years	Per country	National budget	N/A
Develop policies and effective systems for land evaluation in cases of development-driven expropriation for public interest, to ensure appropriate computation of compensation where necessary	Improved computation of fair compensation for land expropriation.	Policies and effective systems for land evaluation developed. Land laws and policies in place.	Compensation value per Ha.	National stats & data. Legal judgements and awards.	10 years	Per country	National budget	N/A

National Level: Pillar 4

National Table 21 (Pillar 4, Strategic Issue 1: Skilled labour)

NT21

Pillar 4: Skills Development and R&D

Total Cost in US \$

Strategic Issue 1: Skilled labour

Objectives: Develop human capital in order to improve the performance of the commodities sector by enhancing technical capacities, skills portability, and ensuring inclusiveness

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ ONGOING INITIATIVES
Undertake training needs assessments, develop and promote harmonised training programmes at national level (vocational and higher level education), as well as put in place certification frameworks.	Skills, capacities and certification enhanced and developed to respond to industrialisation needs.	Training needs assessment undertaken. Harmonised training programmes and curricula developed and promoted. Certification frameworks in place.	Number of countries with: - Training needs assessment, - Harmonised curricula and - Certification frameworks	National policy progress reports National stats & data. UNDP HDI	5 years	As per country	Member states Partners Private Sector	STISA
Design affirmative actions to ensure the inclusiveness of vulnerable persons (including youth, women, and physically challenged persons) in the commodity sector	Enhanced participation of vulnerable persons, including youth, women, and physically challenged persons, in the commodity sector	Polices and incentives for enhanced inclusiveness, in place.	Percentage of vulnerable persons profitably engaged in the commodity sector.	National Statistics. NGOs	5 years	As per country	National budgets Partners	RECs Financial Institutions

Encouraging the creation of specialised tertiary education programmes, in particular Science, Technology, Engineering and Mathematics (STEM)	Enhanced STEM skills	Specialised tertiary STEM education programmes operational.	Number of STEM trainees/students Number of STEM graduates.	National Statistics.	5 years	As per country	National budgets Private sector Partners	STISA
Develop regional partnerships (government, private sector) for training and innovation in support of research	Enhanced training and innovation in support of research	Private sector participation in training and research	Value of: - State investment - Private sector investment.	National Statistics National Research Councils. Tertiary education entities. Government reports.	5 years	As per country	Member states Private Sector	STISA
Incentivise private companies to invest in training, research and innovation	Increased investment in training and RDI (Research, Development & Innovation)	Incentives developed and used.	Value of incentives. Number of people trained.	National Statistics				
Promote linkages between research institutions, academia and the private sector to facilitate technology transfer with a view of improving value addition to commodities and commercialisation (mass production of innovation)	Value addition through linkages improved	Linkage based coordination mechanisms established	Number of coordinating mechanisms agreed.	National progress reports	5years	As per country	National Budget Partners	Inter-ministerial working groups

Establish policies that facilitate development of the local manufacturing sectors.	Growth of local manufacturing.	Effective implementation of local manufacturing based industrial policies.	Number of locally manufactured products Value of local manufacturing	National stats. National production index reports	5 years	As per country	National budget	
Establish specialised technical centres for commodity development in member states	Improved skills in commodity development	Commodity based specialised technical centres established	Number of technical centres operational. Number of people skilled.	National stats. National reports	5 years	As per country	National budgets	
Establishing R&D funds in member states	R&D funding increased.	R&D funds established	Value of R&D funding. Number of world class locally produced products	National stats. National economic reports	5 years	As per country	National budgets	Import and export taxes

National Table 22 (Pillar 4, Strategic Issue 2: Entrepreneurship)

NT22

Pillar 4: Skills Development and R&D

Total Cost in US\$

Strategic Issue 2: Entrepreneurship

Objectives: Enhance the capacity of institutions to nurture entrepreneurial culture for development and growth of commodities sector

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Build capacity of institutions to train/nurture entrepreneurship	Increased number of locally made products.	Fully functional institutes offering entrepreneurial training	Number of institutes. Number of graduates.	National statistics. Government reports. Business Registries	5 years	As per country	Levies.	AU SME STRATEGY
Establish innovative business incubators that add value to the commodities sector.	Innovative and competitive products in the market increased	Established incubators	Number of incubators set up. Value of incubator budgets.	National stats. Government reports. Progress reports	5 years	As per country	National budget and levies	AU SME STRATEGY
Develop and harmonise policy and regulatory frameworks that promote entrepreneurship	Growth in local businesses and turnover.	Efficient and conducive environment for local business growth (ease of doing business) established.	Increase in number new business developed. Increase in value-added.	National stats. Government reports Registrar generals report	5 years	As per country	Business license fees	AU SME STRATEGY

Develop and harmonise schemes that facilitate the formalisation of informal labour markets and micro-, small, and medium enterprises (MSME)	Increased economic contribution from MSMEs. Increased formal labour.	Schemes that facilitate the formalisation of informal labour markets and micro-, small, and medium enterprises in place and operational.	Number of workers formalised. Number of MSMEs formalised.	National stats. Government reports Registrar of companies	5 years	As per country	National budget and levies	AU SME STRATEGY
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National Table 23 (Pillar 4, Strategic Issue 3: Technology and Innovation)

NT23

Pillar 4: Skills Development and R&D

Total Cost in US \$

Strategic Issue 3: Technology and Innovation

Objective 1: Enhance access to cleaner, modern and affordable technologies and encourage adaptation, adoption and reverse engineering

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Encourage reverse engineering, technology transfer, technology adoption and adaptation to suit the needs of local industries.	New and innovative local products developed	New and innovative technologies	Number of new and innovative products developed	National stats. National Research and Scientific council	5years	As per country	National budget Partners	AU STISA-2024 Technology development institutions

Promote the use of cleaner technologies as well as information and communication technologies (ICT) in the commodities sector

Increased use of ICT and clean technologies in the commodity sector

Efficient use of technology in the commodity sector

Growth in value of investment in ICT and clean technologies

Government reports and data.
National research and scientific councils
Technology Readiness Index

5years

As per country

National budget

Partners

AU STISA-2024
Technology development institutions

National Table 24 (Pillar 4, Strategic Issue 3: Technology and Innovation)

NT24

Pillar 4: Skills Development and R&D

Total Cost in US\$

Strategic Issue 3: Technology and Innovation

Objective 2: Provide Incentives to foster and incubate innovation to accelerate the development of commodities in Africa

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Introduce R&D and innovation culture on commodities in education systems and industries	Entrepreneurial based economy developed	Entrepreneurial based R&D and innovation curricula introduced	Number of countries that have implemented entrepreneurial based curricula %GDP of RDI investment	Ministries of Education Report %GDP of RDI investment	5years	As per country	National budget	AU STISA-2024
Develop mechanisms to link centres of excellence (CoE) to the commodities industries	Enhanced efficiency in the commodities industries	Linkages between centres of excellence and the commodities industries established.	Number of linkages (btw CoEs & industry). Value of centres of excellence commodity sector R&D.	National stats. Annual reports	3 years	As per country	National budget	Technology development institutions

National Table 25 (Pillar 4, Strategic Issue 3: Technology and Innovation)

NT25

Pillar 4: Skills Development and R&D

Total Cost in US\$

Strategic Issue 3: Technology and Innovation

Objective 3: Provide opportunities for training and skills development in the use of modern and innovative digital applications in the commodity sector for the benefit of the African operators

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Promote the establishment of community-based training institutions and e-learning platforms for SMEs and other relevant operators	Improved productivity and standards at community level	Community based training institutions and e-learning platforms established	Increased market share of local products.	National statistics	5 years	As per country	National Budgets	AU STISA-2024
Promote the establishment of commodity-oriented tech-hubs and start-ups	Increased uptake and scaling up of technologies produced by start-ups.	Recognised start-ups.	Number of and extent of uptake of start-up technologies.	Ministry of Science and Technology.	5 years	As per country	National budget	AU STISA-2024
Invest in national capabilities to harness the Fourth Industrial Revolution technologies and	Competitive products produced efficiently	Fourth industrial based technologies available.	Use of new technologies in the production line.	National Industrial Statics	5years	As per country	National Budget	AU STISA-2024 And AU Digital transformation Strategy

leapfrog development
challenges in the
commodities value
chains

At Regional Level

Regional Level: Pillar 1

Regional Table 1 (Pillar 1, Strategic Issue 1: Financing and Capital Markets)

RT1

Pillar 1: Commodity markets and pricing

Total Cost in US\$:

Strategic Issue 1: Financing and Capital Markets

Objective 1: Develop effective and competitive financial and capital markets

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME IN- DICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME- FRAME</i>	<i>ESTI- MATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRES- SPONDING/ ONGOING INITIATIVES</i>
Creating supporting policies, harmonising regulatory frameworks and undertaking other necessary actions at national, regional and continental levels for effective and competitive financial and capital markets	Competitive financial and capital markets Improved	Policies for effective and competitive financial system and capital markets in place	Level/extent of access to financial markets. 50 % of African countries have ratified the strategy document.	National and regional policy documents/progress reports	5 years	Per RECs	Member state budgets REC and Partners	Independent financial institutions and banks. AfDB initiatives Afrexim Bank

Allowing free movement of capital across the continent (RECs & AU levels)	Liberalisation of financial systems /capital market	African harmonised capital markets framework issued and activated	- Number of countries that align with the African harmonised financial regulations for free movement of capital. - Number of countries with free movement regulations. - Level of intra REC direct investments	National and regional policy documents Regional statistics. Central/ reserve banks	5 years	Per RECs	Member state budgets RECs and Partners, AUC, Banks	Independent financial institutions & banks. African Securities Exchanges Association (ASEA). AfCFTA
Fostering Public-Private Partnerships in building the required financial and capital markets infrastructure.	Enhanced capital availability through improved financial and capital markets infrastructure	PPPs in building capital markets infrastructure realised.	Number of capital markets infrastructure elements built. Value of PPP financed infrastructure.	National/RECs documents Stock Exchange reports. ASEA reports. Banks.	5 years	Per RECs	PPPs	African Securities Exchanges Association (ASEA) initiatives. Afrexim Bank AfDB AU initiatives on financial institutions
Establish and/or strengthen DFIs that focus on commodity value chain development	Value of financing along the commodity value chains increased	DFIs established and/or strengthened	Value of DFI financing along the commodity value chains increased	DFI Annual Reports	5-10 years	Per RECs	National budgets Financial institutions RECs	

Regional Table 2 (Pillar 1, Strategic Issue 1: Financing and Capital Markets)

RT2

Pillar 1: Commodity markets and pricing

Total Cost in US\$:

Strategic Issue 1: Financing and Capital Markets

Objective 2: Minimise risks associated with doing business

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIMEFRAME</i>	<i>ESTI-MATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRES-SPONDING/ ONGOING INITIATIVES</i>
Facilitating ease of doing business and mitigating financial risks	Low Risk and conducive Investment environment created	Access to credit Trade (import/export) guarantee agencies where they do not exist Ease of doing business institutions (e.g. for credits and loans) Rules and regulations that facilitates business doing	WB ease of doing business index Number of outstanding investment disputes Success rate of investment projects Country credit rating	WB ease doing business IMF and rating agencies	3 years		National budget RECs and Partners Private sector AfDB	Country and regional level initiatives to improve investment climate RECs, AU & AfDB initiative

Regional Table 3 (Pillar 1, Strategic Issue 2: Conducive Environment)

RT3

Pillar 1: Commodity markets and pricing

Total cost in US\$

Strategic Issue 2: Conducive Environment

Objective 1: Create a competitive environment through competition policy and law, building on best practices at national and regional levels

STRATEGIC ACTIONS	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIMEFRAME	ESTI-MATED COST IN US\$	FUNDING MECHANISMS	CORRES-SPONDING/ ONGOING INITIATIVES
Establishment of national and regional competition policy and legal institutions in line with the AfCFTA framework, together with an African CET to tackle commodity subsidies and dumping.	Fair market power distributed in the commodity sector in line with the AfCFTA framework	Strong policies that promote competition enacted	Laws Level of conformity of the REC policies with the CFTA Value of intra African FDI in commodities	National Development plans and strategy documents	5 years		National budgets RECs and Partners	AfCFTA African CET

Regional Table 4 (Pillar 1, Strategic Issue 3: Structured Commodity Markets - Commodity Exchanges)

RT4

Pillar 1: Commodity markets and pricing

Total Cost in US\$

Strategic Issue 3 – Structured Commodity Markets - Commodity Exchanges

Objectives:

- a) Functional and reputable Commodity Exchanges (CEs) in all of the major African regions, covering all of the main commodity groups.
- b) Adoption of up-to-date technologies and practices for commodity trading and market data identification and availability.
- c) Establishment of viable regional Common External Tariffs (CETs) and the capacity for effective application, in order to combat unfair competition, particularly that caused by commodity production subsidies in developed countries.
- d) Improved earnings for African commodity producers and economies, by bringing longer term planning and future contracting as a way to stabilise and secure orders and promote good market place behaviour.
- e) Increased intra-regional commodity trading by volume and value, increased earnings for producers, and greater price stability to both sellers and buyers.
- f) Promote digital commodity markets removing “open cry” systems, thereby increasing transparency and increasing access to more players.

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME IN-DICATOR</i>	<i>MEANS OF MEASURE-MENT</i>	<i>TIME-FRAME</i>	<i>ESTI-MATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRES-SPONDING/ ONGOING INITIATIVES</i>
Investigate the regionalisation of existing functional and reputable African CEs that could serve their wider RECs.	Report outcomes assessed and adopted by the REC	Review report of existing CEs completed	REC CE strategy in place	Member states with existing CEs. RECs and national contact points	12months		Private sector RECs and Development Partners National budget	AfCFTA

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTI-MATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Identify suitable locations for establishment of well-functioning regional commodity exchanges in RECs that do not already have a reputable CE or that do not have a CE trading all of the major commodity groups.	Suitable locations for CEs, trading all the RECs major commodities, identified	Identification of locations of CEs in all RECs to trade in all of its major commodities.	REC CE locations identified	Member states lacking in CEs for all their major commodities. RECs and national contact points	12months		RECs and Development Partners	AfCFTA
Establish functional and reputable Commodity Exchanges (CEs) in all of the major African regions, covering all of its main commodity groups (agriculture, minerals/metals and energy carriers).	Market transparency and liquidity, price discovery and increased market linkages, trade finance & market information Defined trading procedures & standards	Regional functional and reputable CEs operational. Lower trading costs: increased returns to producers.	Well-functioning African CEs with better and more stable prices to producers. Enhanced intra-regional trade and linkages	RECs, national contact points and existing, expanded or new CEs	3years		CEs (private sector), Member States with CEs, ODA RECs	AfCFTA
Strengthen market research institutions working in the commodities markets and develop linkages to existing CEs (explore possible connections to exchanges such as ECX or SAFEX as a faster method, to demonstrate increased and fairer selling on open markets, whilst reducing costs).	Enhanced research quality. Enhanced commodity markets research institutions with improved linkages to existing CEs	Commodity markets research institutions strengthened with links to existing CEs	Competent and reputable commodity markets research entities in all RECs	RECs, national contact points and existing CEs	5years		Member States with CEs, RECs, ODA	The African Trade Observatory
Organise regional campaigns for mobilising stakeholders and	Enhanced awareness of CEs and of trading	Regional campaigns	Stakeholders mobilised with	Stakeholders in each	2years		RECs, Member States, ODA	

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
resources and awareness raising of CEs in Africa and of trading practices. Stakeholders: producers, warehouse keepers, traders, brokers and independent clearing house services & inspection providers, etc.).	practices amongst stakeholders	undertaken resulting in increased awareness of CEs and of trading practices	raised awareness	member state, through national contact points and existing CEs				
Provide incentives for the private sector to build or strengthen the hard and soft infrastructure needed for the establishment of commodity exchanges linking sellers and buyers more transparently and faster.	Operational CEs: lower trade costs. Enhanced CEs hard and soft infrastructure linking sellers and buyers	National incentives in place and operational. Infrastructure in place.	Improved CE functionality, scope and participation	National contact points and existing CEs	5years		CEs (private sector), Member States	
Procure appropriate technology and conduct related training for its use where needed.	Lower trade costs. (technology procured with training undertaken)	Appropriate technology operational and skilling completed	Improved CE functionality, scope and participation	National contact points and existing CEs	3years		CEs (private sector)	
Work with the Afrexim Bank to develop financing instruments for intra-African trade in commodities through functioning and trusted African commodity exchanges.	Increased use of CEs: Lower trade costs. Increased intra-African trade in CEs developed	Commodity trading financial instruments developed & available	Increased intra-African CE trade by CEs using enhanced financing instruments	Afrexim Bank, CEs and national contact points.	2years		AUC, Afrexim Bank	

Regional Table 5 (Pillar 1, Strategic Issue 3: Structured Commodities Markets)

RT5

Pillar 1: Commodity markets and pricing

Total cost in US\$

Strategic Issue 3: Structured Commodities Markets

Objective 2: Strengthen commodity producer associations

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
STRATEGIC ACTIONS	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ONGOING INITIATIVES
Group and organise producers into associations through awareness campaigns and training incentives.	Enhanced commodity value chains through commodity associations created and/or strengthened	- Awareness campaigns undertaken. - Training incentives configured and applied. - Regulations in place.	Number of commodity associations established. Number of association members trained. Value of incentives.	Government reports. RECs commodity sectors reports. Commodity association reports.	3 years		NGOs RECs and Development Partners Private sector National budgets Other stakeholders	Regional and Continental chambers (e.g. mines)

Regional Table 6 (Pillar 1, Strategic Issue 4: Pricing and price volatility)

RT6

Pillar 1: Commodity markets and pricing

Total cost US\$

Strategic Issue 4: Pricing and price volatility

Objective 1: Establish mechanisms to anticipate and mitigate the impact of price volatility

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Facilitate the adoption of commodity trading and risk management (CTRM) instruments, such as hedging techniques.	Decreased impact of commodity price volatility	Increased use of risk management instruments	Number of member states using CTRMs Value of volatility decrease (variance)	National accounts. Professional associations. UNCTAD, ITC-Trademap	12months	Per MS and REC	National Treasuries. Financial institutions. CEs, brokers and traders. RECs and Development Partners	Establishment of African CEs.
Where appropriate, introduce RRT (Resource Rent Tax) instruments (minerals and agriculture) to share in resource rents.	RRT instruments and laws in place.	State share of resource rents increased.	Number of member states with RRT instruments. Value of RRT receipts.	National accounts.	3years	Per MS and REC	National Treasuries. RECs and Development Partners	
Create sovereign wealth funds (SWFs), where relevant, to ameliorate commodity prices downturns (stabilisation funds),	SWFs established and receiving RRT flows.	SWFs used to dampen price booms and busts.	Number of member states with SWFs in place. Value of SWFs as a % average	National accounts	4years	Per MS and REC	National Treasuries (RRT receipts) RECs and Development Partners	

and ensure their proper management based on best practices at the global level. Promote safety-net programs that reduce the effects of price volatility on the economy and vulnerable people	Rigorous SWF oversight in place. Safety-net programmes configured & operational	Robust SWF management in place Impact on the economy and vulnerable people reduced	commodity export earnings. Efficacy of the SWFs. Number of recipients. Value of safety-net disbursements.	National accounts	4years	Per MS and REC	National Treasuries. RECs and Development Partners
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Regional Table 7 (Pillar 7, Strategic Issue 4: Pricing and price volatility – trade mispricing)

RT7

Pillar 1: Commodity markets and pricing

Total cost in US\$

Strategic Issue 4: Pricing and price volatility – trade mispricing

Objective 2: Eliminate trade mispricing and unlawful transfer pricing

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
STRATEGIC ACTIONS	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ ONGOING INITIATIVES
Strengthening of relevant national, regional and continental institutions responsible for international trades, such as customs, tax and audit authorities in such a way that they are able and willing to prevent unlawful transfer pricing	Unlawful transfer mispricing eliminated	Relevant institutions strengthened. Requisite customs, tax and audit policies & regulations developed and in place	Number of unlawful operations prevented. Value of transfer mispricing.	Dedicated institution reports Trade and/or fiscal administration reports REC documents	3years	Per REC	AU RECs and Development Partners National budgets	
Where appropriate, working with the OECD/G20 Inclusive Framework on BEPS to curb trade mispricing.	Enhanced ability to combat BEPS through trade mispricing	Greater international cooperation to identify trade mispricing	Value of increased tax receipts	National Treasuries. AfDB REC documents	2years	Per REC	National budgets (National Treasuries)	BEPS AU IFFs initiative.

Regional Table 8 (Pillar 1, Strategic Issue 5 – Commodity producer power)

RT8

Pillar 1: Commodity markets and pricing

Total Cost in US\$

Strategic Issue 5 – Commodity producer power:

Objectives: a) Identify which African commodities could have potential producer power to stabilise prices and build the commodity value chains.

b) Configure cooperative marketing systems to realise producer power, where viable.

b) c) Establish joint market systems for the selected commodities to mitigate price volatility and develop their commodity value chains.

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
STRATEGIC ACTIONS	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTI-MATED COST IN US\$	FUNDING MECHA-NISMS	CORRE-SPONDING/ ONGOING INITIATIVES
Facilitate an analysis of African commodities that may have potential producer power through a large share of global production and/or resources, relative demand inelasticity and relative supply inelasticity.	Identification of African commodities with potential producer power	Analysis of African commodities that may have potential producer power completed	African potential producer power commodities list available for interrogation	All member states (contact points), REC documents, international dbases	1year	Per MS and REC	National budgets NGOs RECs and Partners	AMV +10
Support the configuration of viable joint marketing systems for the selected commodities to realise producer power, including the financing of stockpiles (balance supply/demand) & the equitable distribution of the value chain investments (back- & forward linkages).	Joint marketing systems to realise producer power catering for balanced supply-demand and the equitable distribution benefits	Viable joint marketing systems for the selected commodities configured	African joint commodity marketing systems to realise producer available for interrogation	All member states (contact points), RECs, continental entities (AU, ECA, AfDB, et al), international producer associations (e.g. OPEC)	2years	Per MS and REC	Commodity producers. Regional budgets. NGOs. RECs and Partners/ODA	

Create producer commodity marketing bodies, possibly together with non-African producers, to stabilise prices and leverage value chain investments.	Increased price, BoP stability and value chain investments realised.	African producer power commodity marketing bodies created	Development of the selected value chains, improved and stable prices	All member states (contact points), RECs, partners, producer associations	3years	Per MS and REC	Commodity producers. Regional budgets. NGOs. Partners/ODA
Develop oversight systems to ensure the proper management of the commodity marketing bodies, based on best practices at the global level.	Positive oversight reports. Clean annual audits of the producers bodies	African producer bodies oversight systems in place.	Good management of the marketing bodies, based on global best practices	Member states (contact points), RECs, partners, African prof. auditing associations	3years	Per MS and REC	Commodity producers. Regional budgets. NGOs. Partners/ODA.

Regional Level: Pillar 2

Regional Table 9 (Pillar 2, Strategic issue 1: Management and sustainable use of natural resources)

RT9

Pillar 2: Linkages and Diversification

Strategic Issue 1: Management and sustainable use of natural resources

Total Cost in US\$:

Objective 1: Ensure sustained and inclusive growth through management and sustainable use of natural resources

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING ONGOING INITIATIVES</i>
Develop and harmonise commodity sector policies and regulations governing the management and sustainable use of natural resources, which should be aligned with continental and global frameworks and instruments/tools with strong local and regional content and inclusivity dimensions.	<ul style="list-style-type: none"> - Commodity value added increased. - Inclusive growth and sustainable management of natural resources - Local employment and entrepreneurship Increased. - Value added of manufacturing goods improved - Economic growth and development, as well as diversification in the commodity sector are improved. 	<ul style="list-style-type: none"> - Harmonised commodity sector policies & regulations in place. - Regional-local content, beneficiation, and value addition legislation in place in member countries. - National and regional policies which foster investment into manufacturing, production and technological 	<ul style="list-style-type: none"> - Percentage of value added products traded (e.g. an increase of 5% from the baseline) - - Extent of jobs created from the use of natural resources. - Percentage increase of value added manufacturing. 	<ul style="list-style-type: none"> National: annual reports, progress reports and economic surveys Regional reports and surveys 	5 years	Per region	<ul style="list-style-type: none"> REC and Development Partners National budgets 	<ul style="list-style-type: none"> DFIs and Commercial banks RECs and Development Partners

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING ONGOING INITIATIVES</i>
Empower regulatory agencies at different levels with appropriate funding, tools and systems to effectively implement sector-specific policies and regulations, through capacity building, training; skills development and technology transfer.	- Efficient and effective use of natural resources - Revenue collection from the natural resources sector - Improved value addition in the commodity sector.	capabilities of member states - Emergence of local/regional value chains and linkages. - Capable regulatory agencies. - Regulatory reforms in order to support the work of the regulatory agencies.	- The fiscal revenue from the commodity sector increased by 20% -Transparency index gains.	National: annual reports, progress reports and economic surveys Regional reports and surveys	5 years	Per region	RECs and Development Partners National budgets	DFIs and Commercial banks RECs and Development Partners
Build capacity of relevant stakeholders at all levels through the establishment of new or strengthened linkages with existing regional and national centres of excellence.	- Efficient and effective use of natural resources. - Inclusive involvement of stakeholders in natural resource management and utilisation.	- Linkages with existing national and regional centres of excellence, (information sharing). -Training, workshops, and seminars to build capacity of relevant stakeholders	- Percentage of fiscal revenue from the commodity sector -Transparency index	National: annual reports, progress reports and economic surveys Regional reports	5 years	Per region	RECs and Development Partners National budgets	DFIs and Commercial banks

STRATEGIC ACTIONS	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING ONGOING INITIATIVES
Develop platforms for disseminating and sharing market information, policies and best practices on management and sustainable use of all natural resource to all stakeholders.	-Ease of market access -Increased business collaborations/synergies	-Platforms where government meets with stakeholders -Private sector associations and Chambers of commerce, industry & mines.	- Level of increase in trade volume.	National: annual reports, progress reports and economic surveys Regional reports	5 years	Per region	RECs and Development Partners National budgets	DFIs and Commercial banks
Promote the use of digital commodity management applications	-Ease of market access -Increased business collaborations/synergies	Digital commodity management applications	-Level of increase in trade volume - Time to make a trade. - LPI (logistics performance index: WB)	National: annual reports, progress reports and economic surveys Regional reports LPI	5 years	Per region	RECs and Development Partners National budgets	DFIs and Commercial banks

Regional Table 10 (Pillar 2, Strategic Issue 2: Value Chain development)

RT 10

Pillar 2: Linkages and Diversification

Strategic Issue 2: Value Chain development

Total Cost in US\$:

Objective 1: Promote competitive, inclusive and responsible national and regional value chains to maximise the linkage opportunities and for greater integration into local, regional and continental markets, as well as global markets.

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ ONGOING INITIATIVES
Develop regional commodity strategies at the Regional Economic Community (REC) level for both agricultural commodity value chains and mineral commodity value chains.	Increased value addition and linkages realisation along each regional commodity value-chain. Greater scale economies realised.	- Key regional commodity value chains mapped for each REC. - Development strategies in place for all REC key commodity chains.	- Number of value chains mapped with strategies. - Value & volume of production. - Value of value addition. - Value of local-regional content. - Value of import displacement.	National accounts. UNCTAD, ITC Trademap. National statistics. REC statistics	2y	Per region	National budgets. Partners. Commodity producer associations (e.g. Chambers of mines)	AU AMDC AMV regionalisation (RMVs) REC FTAs. AfCFTA Afrexim Bank
Develop national and regional commodity value chain regulatory frameworks, which recognise regional and local content, aligned with existing continental initiatives (CAADP, AIDA, AMV, etc.), which leverage the opportunities created by the AfCFTA based on the	- Competitive and inclusive national and regional value chains. - Commodity value chain development regulatory frameworks in place & operational. - Increased local/regional content along value chains.	- Policies and strategies on commodity values chains established, which are aligned to regional and continental initiatives (CAADP, AIDA, AMV/RMV, etc.)	- Level of increase in trade volume in value added commodity products - Level of diversification - Level (value) of linkages in value chains	National: annual reports, progress reports and economic surveys. National statistics. REC statistics	5 years	Per region	National budgets RECs and Development Partners	DFIs and Commercial banks

Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation			
STRATEGIC ACTIONS	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ONGOING INITIATIVES
comparative advantages of countries and regions.	- Greater intra-African trade and investment.							
Prioritise the development of key commodity value chains (to provide the feedstocks for African growth, development and intra-African trade), over feedstocks destined for extra-African markets.	-Enhanced market connectivity - Increased FDI and DDI - Increased industrialisation and technological advancement	- Policies and legislation on integrated Special Economic Zones (SEZs) - Integrated SEZs operational.	- Value of new investments. - Number of new jobs created. - Value of increased in trade volume in value added products	- National: annual reports, progress reports and economic surveys. National statistics. REC statistics UNCTAD, ITC Trademap	5 years	Per region	National budgets RECs and Development Partners	DFIs and Commercial banks
Creating, encouraging and strengthening of frameworks that will facilitate the development of cross-border value chain projects in the manufacturing and industrial sector (including the 4 th IR technology)	-Competitive and inclusive national and regional value chains developed. -Investments in cross-border industrial value chain enhanced. - Cross-border logistics costs lowered.	- Cross-border industrial development cooperation instruments (e.g. MOUs, agreements etc.) on value chain development projects. - List of priority cross-border value chain industrial projects	- Number of cross-border industrial projects. - Value of new investments (FDI & DDI). - LPI value.	- National: annual reports, and progress reports. Regional reports Multilateral indices	5 years	Per region	National budgets RECs and Development Partners	DFIs and Commercial banks

Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation			
STRATEGIC ACTIONS	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ONGOING INITIATIVES
Create, encourage and strengthen frameworks and projects to promote cross-border commodity value chains, through incentives and the removal of tariff barriers and NTBs.	<ul style="list-style-type: none"> - Ease of market access. - Increased business collaboration & synergies (B2B, private sector associations/ chambers). - Increased intra-REC and intra-African trade within commodity value chains. 	<ul style="list-style-type: none"> - Platforms & institutions for engagement between government, private sector and academia - Incentives configured and available. 	<ul style="list-style-type: none"> - Value of increase in trade volume. - LPI ratings. - Value of incentives disbursed. 	<ul style="list-style-type: none"> National: annual reports, progress reports and economic surveys Regional reports 	5 years	Per region	<ul style="list-style-type: none"> National budgets RECs and Development Partners 	<ul style="list-style-type: none"> DFIs and Commercial banks AfCFTA REC FTAs
Facilitate the development of local manufacturing, by providing targeted incentive packages (fiscal, regulations, business development services, etc.) to support commodity value chain development.	<ul style="list-style-type: none"> - Ease of market access - Increased business collaboration/synergies (ecommerce) 	<ul style="list-style-type: none"> - Policies and regulations for the digital management of commodities. - Training and capacity building on digital technological management of commodities. - Enabling infrastructure for the digital management 	<ul style="list-style-type: none"> - Level of digitisation. - Value of incentives disbursed. - Value of extra-African import displacement. - Value of benefited commodity exports. 	<ul style="list-style-type: none"> National: annual reports, progress reports and economic surveys. UNCTAD, ITC Trademap Multi-lateral dbases. 	5 years	Per region	<ul style="list-style-type: none"> National budgets RECs and Development Partners 	<ul style="list-style-type: none"> DFIs and Commercial banks
Create platforms for engagement between government, private sector (commodity producers, inputs suppliers and processors), state entities	<ul style="list-style-type: none"> - Increased collaboration between state and private sector on commodity value 	<ul style="list-style-type: none"> - Common commodity value chain development visions, policies 	<ul style="list-style-type: none"> - Number of PPP engagements. - Value of PPP projects. - Number of adopted visions/strategies/policies 	<ul style="list-style-type: none"> National: annual reports, progress reports and economic 	2 years	Per region	<ul style="list-style-type: none"> National budgets RECs and Development Partners 	<ul style="list-style-type: none"> REC and Continental visions, strategies & policies (e.g.

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
and other stakeholders in implementing a common vision, policy and strategy. Secure resources to support commodity linkages development.	chain development (PPPs). - Increased resources for commodity linkages development.	and strategies in place. - Platforms/forums established.	- Value of resources for linkages development.	surveys. Regional reports				AMV/RMV, Malabo, CAADP)

Regional Table 11 (Pillar 2, Strategic Issue 3: Resilient infrastructure development)

RT 11

Pillar 2: Linkages and Diversification

Strategic Issue 3: Resilient Infrastructure development

Total Cost in US\$:

Objective 1: Optimise the performance of the commodity value chains through the development of sustainable and integrated requisite infrastructure and improve access to infrastructure.

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ ONGOING INITIATIVES
Plan, design and implement resilient infrastructure development projects at national, regional and continental levels to facilitate trade, value addition and supplier industries, along the commodity value chains, through innovative financing mechanisms, such as public-private partnerships (PPP) and venture capital funds (VCFs).	<ul style="list-style-type: none"> - Ease of doing business facilitated - Commodities value chain infrastructure improved. - Performance of the commodity sector improved/ optimised. - Value addition and local-regional content enhanced. - Intra-African trade along the commodities value chains increased. 	<ul style="list-style-type: none"> - PFSs & Feasibility studies identifying commodity nodes completed. - Integrated sustainable infrastructure-industry master plans developed. - Resilient infrastructure developed - Resource mobilisation plan completed. - PPP & VCF financing utilised. - Lower logistics costs. - Enhanced Ease of Doing Business. - Greater intra-African trade. 	<ul style="list-style-type: none"> - % reduction in transaction costs. - LPI index lowered by 20%. - Ease of Doing Business lowered by 20%. - Intra-African in commodity value chain products increased by 20%. - % realisation of PIDA PICI projects 	<ul style="list-style-type: none"> National: annual reports, progress reports and economic surveys. REC stats. AfDB & ECA stats. -Doing business indicator reports (Ease of Doing Business Index). LPI dbase. UNCTAD, ITC Trademap dbase. PICI updates 	5 – 10 years	Per region	<ul style="list-style-type: none"> National budgets RECs and Development Partners 	<ul style="list-style-type: none"> BIAT Action Plan and the AfCFTA Agreement PIDA

<p>Prioritise the development of national components of cross-border infrastructure projects, including existing regional initiatives.</p>	<ul style="list-style-type: none"> - Ease of doing cross-border business facilitated - Performance of the commodity sector improved/ optimised. 	<ul style="list-style-type: none"> - Priority cross-border infrastructure projects list developed. - Feasibility studies on cross-border infrastructure projects (for Commodity nodes) done. - Integrated Cross-border infra-structure-industry sustainable master plans completed. - Resilient cross-border infrastructure projects developed. - Resource mobilisation plans in place. 	<ul style="list-style-type: none"> - Investment in cross-border infrastructure for commodity value chains trade up by 20%. - Cross-border infrastructure costs decreased by 20%. - Cross-border trade up by 20%. 	<p>National: annual reports, progress reports and economic surveys. Regional reports Doing business indicator reports. LPI Index dbase. UNCTAD, ITC-Trademap dbase. AfDB & ECA stats.</p>	<p>5 years</p>	<p>Per region</p>	<p>National budgets RECs and Development Partners</p>	<p>CFTA & BIAT PIDA</p>
<p>Encourage cooperation among AU MSs and RECs in attracting investment into sustainable infrastructure to facilitate greater commodity beneficiation, local content and regional value chain development, in line with the objectives of the AfCFTA.</p>	<ul style="list-style-type: none"> - Investment (both domestic and FDI) into requisite resilient infrastructure increased. - Greater commodity beneficiation, local content and regional value chain development. 	<ul style="list-style-type: none"> - Industrial and investment policies and cooperation frameworks in place and approved. - National Investment Promotion Agencies (IPA) established/ strengthened. 	<ul style="list-style-type: none"> - Investment in commodities infrastructure, between African countries increased by 20%. 	<p>National: annual reports, progress reports and economic surveys. REC stats.</p>	<p>5 years</p>	<p>Per country & REC</p>	<p>National budgets RECs and Development Partners</p>	<p>DFIs and Commercial banks PIDA</p>

<p>Encourage, where applicable, transparent and accountable investment protocols in relation to infrastructure projects development with commodity seeking firms or countries, which support value chain development in line with the AU AfCFTA Decisions. Grant countries or firms access to commodities to leverage favourable financing of infrastructure, mindful of the need for proper resource valuation.</p>	<ul style="list-style-type: none"> - Commodities diversification (value addition & local content) promoted. - Reduced illicit financial flows in infrastructure investments. - Infrastructure investment facilitated by commodity buyers increased. - Simplified and business friendly regulatory frameworks. - Infrastructure investments increased. 	<ul style="list-style-type: none"> - Packaging of incentives to encourage investors for beneficiation and local content in commodity value chains. - Valuation of economic resources and allocation of predetermined value for financing of infrastructure projects - Capacity building of institutions which provide integrated soft infrastructure. - “Infrastructure4commodities” Model Offset Agreement developed and available. 	<ul style="list-style-type: none"> - Levels of diversification increased for beneficiation & local content. - Amount of illicit flows in infrastructure reduced. - Better ease of doing business index. - Greater infrastructure investment. - Number of offset agreements. 	<p>National: annual reports, progress reports and economic surveys. Regional reports and surveys.</p> <p>National: annual reports, progress reports and economic surveys. Regional reports. Ease of Doing Business Index.</p>	<p>5 years</p> <p>5 years</p>	<p>Per region</p> <p>Per region</p>	<p>National budgets RECs and Development Partners</p> <p>National budgets RECs and Development Partners</p>	<p>The Africa Mining Vision</p> <p>The Africa Mining Vision</p>
<p>Leverage resource rents, particularly from mineral commodity extraction, to establish infrastructure configured for use by other sectors (Third Party Access).</p>	<ul style="list-style-type: none"> - Improved economies of scale at national and regional level. - Introduction of resource rent tax instruments (RRT). - Enhanced infrastructure. 	<ul style="list-style-type: none"> - Inclusion in national development plans of regional plans, initiatives, strategies etc. - RRT instruments adopted. - Increased RRT revenues invested in infrastructure. 	<ul style="list-style-type: none"> - % of 3rd party utilisation of resource infrastructure. - Resources infrastructure projects value. 	<p>National: annual reports, progress reports and economic surveys.</p>	<p>5 years</p>	<p>Per region</p>	<p>National budgets RECs and Development Partners</p>	<p>The Africa Mining Vision</p>
<p>Build and strengthen institutions which provide integrated soft</p>	<ul style="list-style-type: none"> - Increased use of integrated soft infrastructure. 	<ul style="list-style-type: none"> - Ease of infrastructure provision enhanced. 	<ul style="list-style-type: none"> - Investment in resilient infrastructure 	<p>National: annual reports,</p>	<p>3 years</p>	<p>Per region</p>	<p>National budgets</p>	<p>PIDA Projects</p>

<p>infrastructure in order to simplify regulatory frameworks and make them more user-friendly.</p>	<ul style="list-style-type: none"> - Simpler & user-friendly regulatory frameworks. - Stronger integrated soft infrastructure entities. 	<ul style="list-style-type: none"> - Regulatory frameworks simplified. 	<p>increased by 20%. - Time to navigate regulatory systems decreased by 20%</p>	<p>and economic surveys. Regional reports. Ease of Doing Business Index.</p>		<p>RECs and Development Partners</p>
<p>Strengthen linkages with regional integration initiatives to create economies of scale for new regional infrastructure investments.</p>	<ul style="list-style-type: none"> - Regional infrastructure scale economies projects increased. - Increased investment in infrastructure. 	<ul style="list-style-type: none"> - Regional scale economies infrastructure projects realised. 	<p>- Number and value of regional infrastructure projects increased by >20%.</p>	<p>National: annual reports, progress reports and economic surveys. REC stats.</p>	<p>5 years Per country & REC</p>	<p>National budgets RECs and Development Partners</p>

RT12

Pillar 2: Linkages and Diversification

Total Cost in US\$

Strategic Issue 4 – Quality Infrastructure systems development

Objectives: Promote sustainable production, trade and consumption of value-added products through the development and harmonisation of QIS.

Regional Table 12 (Pillar 2, Strategic Issue 4: Quality Infrastructure systems development)

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ONGOING INITIATIVES
At the continental level, harmonise quality policy for a coherent regulatory framework with regard to technical barriers to trade by means of TBT/SPS annexes to the AfCFTA protocol.	- Continental harmonised policy framework in place. - Improved quality of products and ease of trade at national and regional levels	- National quality policy on Technical Barriers to Trade developed, in line with continental framework - Strengthening the QIS systems of the respective of Bureaus of Standards.	- Enhanced level of quality of products. - Greater ease of trade.	National: annual reports, progress reports and economic surveys. REC stats. AU ARSO data.	5 years	Per country	National core budget and Development partners	PAQI initiatives ARSO initiatives
Promote the establishment of national, regional and continental QIS based on international best practices.	- Sustainable production, trade, and consumption of value added products increased	- National QIS developed. - Increased in trade of value added products	- Increased in trade and consumption of value added products of 20%.	National: annual reports, progress reports and economic surveys. ITC Trademap	5 years	Per country	National core budget and Development partners	PAQI BIAT
Establish and strengthen quality infrastructure	Sustainable production, trade and consumption of value	- Quality infrastructure institutions (National Bureaus of Standards)	- 20% increase in trade in	National: annual reports, progress	5 years	Per country	National core budget and	ARSO PAQI

institutions and pan-African platforms such as Pan African Quality Infrastructure (PAQI), in order to improve the competitiveness of the commodity sector.	added products improved	established and/or strengthened.	value added commodities	reports and economic surveys. ARSO data PAQI data				Development partners
Promote the establishment of mutual recognition arrangements (MRAs) across the regional economic communities (RECs).	Improved mutual recognition arrangements among RECs	Mutual recognition arrangements among RECs established. MS laws/regulations for regional mutual recognition in place.	Number of mutual recognition arrangements.	MSS RECs (regional level)	5 years	Per REC	REC budgets	PAQI Development Partners
Build the capacity of commodity producers, beneficiators and inputs suppliers on quality standards.	- Improved market access for producers, beneficiators and inputs suppliers.	-Training, workshops and seminars on quality standards for value chain players. - Enhanced value chain skills.	- Increased trade in volume & value along the value chains.	National: annual reports, progress reports and economic surveys	5 years	Per country	National core budget and Development partners	PAQI

Regional Level: Pillar 3

Regional Table 13 (Pillar 3, Strategic Issue 1: Governance - political and institutional governance)

RT 13

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 1 on Governance: political and institutional governance

Objectives: Promote adherence to effective political governance frameworks

Results

Monitoring and Evaluation (M&E)

Financing and Resource Mobilisation

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Promote meritocratic leadership in the public sector for good governance of the commodity value chains	Meritocratic leadership in the public sector established.	Meritocratic policies in the public sector	Improved public service delivery. Optimised commodity value chains	National & regional policy documents/progress reports.	5 years	Per country & REC	National core budget and partners REC	Public-private sector partnerships
Establish and maintain independent, legal and political institutions to ensure the Rule of Law	Independent, legal and political institutions established.	Independent, legal and political institutions. Institutionalisation of Independent, legal and public entities.	Number of well-governed national and regional entities	National policy documents/progress reports. Auditor General Reports	5-10 years	Per country & REC	National core budget	Independent institutions APRM
Strengthen the capacity of public institutions to enforce laws and policies for the management of commodity resources; enforce the law through credible and independent institutions to monitor the activities	Enhanced public sector delivery. Capacity of public institutions strengthened	Empowered public institutions	Level/quality of service from public institutions improved. APRM Ibrahim index of African Governance (IIAG) metrics Afro-Barometer metrics Resources Governance Index (NRGI).	Number of public officials and independent institutions capacitated. APRM Ibrahim index of African Governance (IIAG) Afro-Barometer Resources Governance Index (NRGI). World Governance Index (WGI)	5-10 years	Per country & REC	National budget, private institutions, international partners	Public-private sector partnerships APRM IIAG

World
Governance
Index (WGI)

Regional Table 14 (Pillar 3, Strategic Issue 2 on Governance - Corporate governance)

RT 14

Pillar 3: Governance and Enabling Environment

Strategic Issue 2 on Governance: Corporate governance

Objectives: Design and implement corporate governance frameworks based on best practices

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Put in place corporate accountability and transparency laws and regulations to ensure good corporate citizenship	Corporate laws and regulations formulated.	Policies on corporate governance in place.	Corporate citizenship Improved. Clean audit reports. Natural Resources Governance Index (NRGI). King IV	Level of corporate accountability and transparency. Resource Governance Index (NRGI). EITI Reports.	5 years	Per country	National budget	EITI
Promote and enforce appropriate laws (company, labour, occupational and health hazards, unionisation and labour rights)	Appropriate laws (company, labour, occupational and health hazards, unionisation and labour rights)	Improved corporate governance and social responsibility	Laws and regulations in place. Progress reports on	Number of National laws & regulations in place. CSR indices. Audit reports.	5 years	Per country	National budget	AMV

	promoted and enforced.		company activities.	WCGI.				
Promote codes for good business ethics.	Codes of good business ethics promoted	Codes of business ethics	Improved social responsibility	CSR indices. World Corporate Governance Index (WCGI).	5 years	Per country	National and private sector budgets	Public-Private sector partnership

Regional Table 15 (Pillar 3, Strategic Issue 3: Governance - Social governance and inclusivity

RT 15

Pillar 3: Governance and Enabling Environment

Total Cost US\$

Strategic Issue 3 on Governance: Social governance and inclusivity

Objectives: Enhance social and inclusive participation of all stakeholders in the commodity sector

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Establish mechanisms for inclusive participation by all stakeholders in the commodity sector	Mechanisms for inclusive participation by stakeholders established.	Stakeholder engagement forums. CSR audits	Improved participation of various stakeholders	Frequency of stakeholder engagements. CSR indices	5 years	Per country & REC	National, regional and private sector budgets	SDGs
Promote equitable access to and ownership of factors of production, as well as to social and economic infrastructure services.	Equitable access and ownership of factors of production promoted.	Equitable access and ownership of factors of production.	Access and ownership of factors of production.	Extent of access and quantum of ownership.	5- 10 years	Per country	National and private sector budget	SDGs
Develop advocacy programs addressing social issues in the commodity sector	Advocacy programs on social issues developed.	Advocacy on social issues operational.	Programmes on social issues. Ranking on CSR indices.	Extent of engagements on social issues. CSR Indices.	5 years	Per country & REC	National REC and private sector budget	APRM
Develop, legislate and promote equity practices, taking into account the interests	Enhanced equity.	Legislation on equity practices for, women, youth and other	Extent of access to legislation on	CSR Indices. NRGI.	5 years	Per country REC	National budget Partners	APRM

and needs of vulnerable groups

vulnerable groups developed and in place.

equity practices. Number of beneficiaries.

Regional Table 16 (Pillar 3, Strategic Issue 4: Governance - Economic governance)

RT 16

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 4 on Governance: Economic governance

Objectives: Promote and implement economic governance frameworks that support sustainable development

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Establish and implement sound and transparent public finance management systems	Sound and transparent public finance management systems established	Implementation of sound and transparent public finance management systems	Number of Public finance management systems place Number of clean audit reports. Ranking on independent public finance management rating organisations	Number of systems in place. NRGI data EITI data Transparency International data. AfDB data.	5-10 years	Per country and REC	National and private sector budget	APRM

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Negotiate and implement fair and equitable FDI, agreements, contracts, leases and concessions in the commodity sector.	Increased benefits to Africa from fair and equitable investment agreements	Fair FDI agreements and contracts in the commodity sector negotiated and implemented.	Number of fair investment Agreements and Contracts	National policies on investment. NRGI. WCGI. AU AMDC.	5-10 years	Per country	National and private sector AfDB – ALSF (African Legal Support Facility) Connex Partners	Pan African Investment Code (PAIC)
Negotiate and implement fair investment agreements and contracts in the commodity sector.	Fair investment agreements and contracts in the commodity sector negotiated and implemented.	Enhanced negotiation capacity on investment Agreements and Contracts	Number of domestication of fair investment Agreements and Contracts	National entities on investment. NRGI. WCGI. AU AMDC.	5-10 years	Per country and REC	National and private sector budget	AMV EITI
Reviewing existing taxation systems and regimes in order to promote economic governance in the commodity sector.	Existing taxation systems and regimes reviewed.	Modern taxation systems and regimes. Greater share of resource rents collected.	Functional taxation systems and regimes. RRT instruments established. Tax receipts from commodities sector.	Extent of tax regime modernisation. “Paying Taxes” annual reports. Tax Offices	5-10 years	Per country and REC	National budgets	Independent institutions & developmental partners. APRM
Implement factor market integration policies in line with AU’s Boosting Intra-	Factor market integration policies on AU’s BIAT cluster implemented.	Domestication of Factor Market Integration cluster of BIAT.	Increased volumes of trade in goods and services	ITC Trademap National trade data	5-10 years	Per country and REC	National budgets and private sector.	AU BIAT Action Plan and AfCFTA

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
African Trade (BIAT) cluster.			Implementation of national policies on Factor Market Integration cluster of BIAT.					
Develop and promote continental/regional local content policies ³³	Continental/regional and local-regional content policies developed. Imports displacement.	Local-regional content policies. Increased visibility of locally produced goods.	Improved BoP for the commodity sector. Number of MSs with local & regional content regulations in place Quantities of locally produced goods.	National statistics. MS local-regional content compliance offices. UNCTAD, ITC-Trademap data.	5-10 years	Per country and REC	National and private sector budget. RECs data	Public-private partnerships and independent institutions. AfCFTA
Formulate, implement and enforce laws to counter money laundering and illicit financial flows	Enhanced revenue collection	Unified laws to counter money laundering and illicit financial flows formulated and applied. Implementation of policies on money laundering and illicit financial flows	Value of increased tax revenues. Value of BoP impact	National Taxation Office/Authority National Bank data	5-10 years	Per country and REC	National budget	BEPS AU IFFs initiatives

³³ Develop guidelines for local content in Africa

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Implement transparent and accountable economic policies that promote access to national, regional and continental markets of commodities.	Access to national, regional and continental commodity markets	Transparent and accountable economic policies implemented.	Value of increased market access for commodities	National International and African CEs data. ITC-Trademap data	5-10 years	Per country and REC	National budget	AfCFTA

Regional Table 17 (Pillar 3, Strategic Issue 5: Governance - Environmental governance)
RT 17

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 5 on Governance: Environmental governance

Objectives: Develop, strengthen and adhere to sustainable environmental governance

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Develop and implement policies, legislation, procedures and practices that encourage conservation	Enhanced conservation and sustainability in the commodity sector	Procedures and practices that encourage conservation and sustainability in the	Number of policies and procedures introduced	National reports & data	5-10 years	Per country & REC	National budget RECs Development Partners	UN SDGs ISO 14000

and sustainability in the commodity sector in accordance with international standards		commodity sector operational.	Ranking on independent environmental & sustainability indices	Environmental Sustainability Index (ESI). Environmental Performance Index (EPI)				
Develop strategies for mitigation, adaptation and resilience to climate change of the commodity sector	Enhanced mitigation, adaptation and resilience to climate change of the commodity sector	Strategies for mitigation, adaptation and resilience to climate change developed	Number of laws & regulations Ranking on independent climate change & sustainability indices GHG emissions from the commodities sector	National policies & documents Environmental Sustainability Index (ESI). Environmental Performance Index (EPI) Other international indices	5-10 years	Per country & REC	National budget RECs Development Partners	UN SDGs
Establish systems for environmental protection	Enhanced environmental protection.	Environmental protection systems in place.	Improved environmental protection metrics	National compliance authorities Ranking on environmental indices.	5 years	Per country & REC	National budget RECs Development Partners	AU initiatives SDGs Ramsar International initiatives
Create governance frameworks that respect the human population as well as the natural ecosystem.	Enhanced respect for the human population and the natural ecosystem	Frameworks that respect human population and the natural ecosystem in place	Human development indices Environmental sustainability indices. Number of frameworks in place.	MS compliance authorities Environmental Performance Index (EPI). UNDP HDI	5 years	Per country & REC	National budget RECs Development Partners	AU initiatives UN SDGs Independent institutions

Establish policies and laws that mitigate pollution, promote land restoration and conserve wet lands	Improved pollution mitigate, land restoration and conservation of wetlands.	Policies on pollution, land restoration and conservation of wetlands	Decreased pollution indices. Area of land restored & wetlands conserved.	National stats. Independent monitoring agencies. Ramsar	5 – 10 years	Per country & REC	National budget RECs Development Partners	RAMSAR ICUN WWF UNDP
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Regional Table 18 (Pillar 3, Strategic Issue 6: Enabling Environment - Policy and legal/regulatory environment)

RT 18

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 6 on Enabling Environment: Policy and legal/regulatory environment

Objectives: Ensure the development, implementation and enforcement of sound policy and legal/regulatory frameworks

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Mainstream the AU Commodity Strategy in national development plans	Increased beneficial impact of African commodity value chains	AU Commodity Strategy in national development plans mainstreamed	AU Commodity Strategy localised	National focal points	5-10 years	Per country & REC	National budget	AMV domestication.
Strengthen the capacity of legal and policy institutions. (Courts, etc.)		Capacity of legal and policy institutions strengthened		Number of capacity building activities/initiatives				
Prioritise the use of African judicial systems to adjudicate whenever disputes or human rights violations occur.	Improved and fairer adjudication. Enhanced African legal integrity	African judicial systems prioritised to adjudicate whenever disputes or human rights violations occur	Frequency of use of African judicial systems. Number judicial systems implemented.	National reports/data. African judicial systems data.	5-10 years	Per country & REC	National budget RECs and development partners	AU APRM

Regional Table 19 (Pillar 3, Strategic Issue 7: Enabling Environment - Human rights)

RT 19

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 7 on Enabling Environment: Human rights

Objectives: Promote, defend, respect, uphold and enforce human rights in the commodity sector

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Protect, defend, respect and remedy the rights of women, children, local communities and other vulnerable groups	Rights of women, children, local communities and other vulnerable groups protected.	Laws and regulations that protect the rights of women, children, local communities and other vulnerable groups in place.	Number of legal documents /policies Frequency of violations	National stats/data. African Commission on Human and Peoples' Rights. ISHR. Human Rights Watch (HRW). Global Voices. Media reports.	5-10 years	Per country	National budget and development partners	AU Banjul Charter. AU Maputo Protocol. AU ACRWC. Independent institutions
Recognise and respect the understanding of cultural and religious nuances in the exploitation of commodities.	Increased recognition of cultural and religious nuances.	Policies, laws and regulations on cultural and religious nuances in the exploitation of commodities	National policies and public pronouncements. Number of infringements.	National data. African Commission on Human and Peoples' Rights. ISHR. Human Rights Watch (HRW). NRGI	5 -10 years	Per country	National budget and development partners	AU Banjul Charter. Independent institutions

Enact laws and regulations that promote the disclosure of human rights abuse and establish remedial procedures	Decrease in human rights abuses	Laws and regulations that promote human rights abuse disclosure and remedial procedures in place	Laws & regulations in place. Number of human rights abuses reported.	National data. African Commission on Human and Peoples' Rights. ISHR. Human Rights Watch (HRW). Media.	5-10 years	Per country	National budget and development partners	AU African Charter on Human and Peoples' Rights. Independent institutions
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Regional Table 20 (Pillar 3, Strategic Issue 8: Enabling Environment - Land tenure and distribution)

RT 20

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 8 on Enabling Environment: Land tenure and distribution

Objectives: Create and implement appropriate mechanisms with regard to land tenure for sustainable exploitation of commodities

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ONGOING INITIATIVES
Develop effective beneficial land access, ownership laws and rights	Enhanced beneficial land access, ownership laws and rights	Land ownership laws and rights in place.	Laws operational. Number of people benefitting.	National and regional data.	5-10 years	Per country	National budget	N/A
Modernise and digitalise cadastral systems.	Efficacy of cadastral systems improved.	Modern digitised cadastral systems operational.	Usage of the cadastral system.	National and regional data.	10 years	Per country	National budget	N/A

Develop and strengthen regulatory frameworks for purposes of land restitution to address past injustices and land dispossession.	Enhanced land restitution to address past injustices and land dispossession.	Land laws and policies in place	Speed of usage. Number of people benefiting from restitution. Area of land restituted.	National and regional data.	10 years	Per country	National budget	N/A
Develop policies and effective systems for land evaluation in cases of development-driven expropriation for public interest, to ensure appropriate computation of compensation where necessary	Improved computation of fair compensation for land expropriation.	Policies and effective systems for land evaluation developed. Land laws and policies in place.	Compensation value per Ha.	National & regional data. Legal judgements and awards.	10 years	Per country	National budget	N/A

Regional Level: Pillar 4

Regional Table 21 (Pillar 4, Strategic Issue 1: Skilled labour)

RT 21

Pillar 4: Skills Development and R&D

Total Cost in US \$

Strategic Issue 1: Skilled labour

Objectives: Develop the human capital in order to improve the performance of the commodities sector by enhancing technical capacities, skills portability, and ensuring inclusiveness

Results

Monitoring and Evaluation (M&E)

Financing and Resource Mobilisation

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Undertake training needs assessments, develop and promote harmonised training programmes at national level (vocational and higher level education), as well as put in place certification frameworks.	Skills, capacities and certification enhanced and developed to respond to industrialisation needs.	Training needs assessment undertaken. Harmonised training programmes and curricula developed and promoted. Certification frameworks in place.	Number of countries with: - Training needs assessment, - Harmonised curricula and - Certification frameworks	National policy progress reports National stats & data. UNDP HDI	5 years	Per REC	Member states RECs Partners Private Sector	STISA
Design affirmative actions to ensure the inclusiveness of vulnerable persons (including youth, women, and physically challenged persons) in the commodity sector	Enhanced participation of vulnerable persons, including youth, women, and physically challenged persons, in the commodity sector	Polices and incentives for enhanced inclusiveness, in place.	Percentage of vulnerable persons profitably engaged in the commodity sector.	National Statistics. NGOs	5years	Per REC	National budgets RECs Partners	RECs Financial Institutions
Encouraging the creation of specialised tertiary education programmes, in particular Science, Technology, Engineering and Mathematics (STEM)	Enhanced STEM skills	Specialised tertiary STEM education programmes operational.	Number of STEM trainees/students Number of STEM graduates.	National Statistics.	5 years	Per REC	National budgets Private sector RECs Partners	STISA
Develop regional partnerships (government, private sector) for training and	Enhanced training and innovation in support of research	Private sector participation in training and research	Value of: - State investment - Private sector investment.	National Statistics National Research Councils.	5 years	Per REC	Member states Private Sector RECs	STISA

innovation in support of research

Incentivise private companies to invest in training, research and innovation

Increased investment in training and RDI (Research, Development & Innovation)

Incentives developed and used.

Value of incentives. Number of people trained.

Tertiary education entities. Government reports. National Statistics

Per REC

National budgets Partners RECs

Promote linkages between research institutions, academia and the private sector to facilitate technology transfer with a view of improving value addition to commodities and commercialisation (mass production of innovation)

Value addition through linkages improved

Linkage based coordination mechanisms established

Number of coordinating mechanisms agreed.

National progress reports

5years

Per REC

National Budget RECs Partners

Inter-ministerial working groups

Establish policies that facilitate development of the local manufacturing sectors.

Growth of local manufacturing.

Effective implementation of local manufacturing based industrial policies.

Number of locally manufactured products Value of local manufacturing

National stats. National production index reports

5 years

Per REC

National budget RECs

Establish specialised technical centres for commodity development in member states

Improved skills in commodity development

Commodity based specialised technical centres established

Number of technical centres operational. Number of people skilled.

National stats. National reports

5 years

Per REC

National budgets RECs

Establishing R&D funds in member states

R&D funding increased.

R&D funds established

Value of R&D funding. Number of world class locally

National stats. National economic reports

5 years

Per REC

National budgets RECs

Import and export taxes

produced
products

Regional Table 22 (Pillar 4, Strategic Issue 2: Entrepreneurship)

RT 22

Pillar 4: Skills Development and R&D

Total Cost in US\$

Strategic Issue 2: Entrepreneurship

Objectives: Enhance the capacity of institutions to nurture entrepreneurial culture for development and growth of commodities sector

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ONGOING INITIATIVES
Build capacity of institutions to train/nurture entrepreneurship	Increased number of locally made products.	Fully functional institutes offering entrepreneurial training	Number of institutes. Number of graduates.	National stats. Government reports. Business Registries	5 years	Per REC	Levies. REC resources	AU SME STRATEGY
Establish innovative business incubators that add value to the commodities sector.	Innovative and competitive products in the market increased	Established incubators	Number of incubators set up. Value of incubator budgets.	National stats. Government reports. Progress reports	5 years	Per REC	National budget and levies REC resources	AU SME STRATEGY
Develop and harmonise policy and regulatory frameworks that promote entrepreneurship	Growth in local businesses and turnover.	Efficient and conducive environment for local business growth (ease of doing business) established.	Increase in number new business developed.	National stats. Government reports Registrar generals report	5 years	Per REC	Business license fees REC resources	AU SME STRATEGY

Develop and harmonise schemes that facilitate the formalisation of informal labour markets and micro-, small, and medium enterprises (MSME)	Increased economic contribution from MSMEs. Increased formal labour.	Schemes that facilitate the formalisation of informal labour markets and micro-, small, and medium enterprises in place and operational.	Increase in value-added. Number of workers formalised. Number of MSMEs formalised.	National stats. Government reports Registrar of companies	5 years	Per REC	National budget and levies REC resources	AU SME STRATEGY
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Regional Table 23 (Pillar 4, Strategic Issue 3: Technology and Innovation)

RT 23

Pillar 4: Skills Development and R&D

Total Cost in US \$

Strategic Issue 3: Technology and Innovation

Objective 1: Enhance access to cleaner, modern and affordable technologies and encourage adaptation, adoption and reverse engineering

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Encourage reverse engineering, technology transfer, technology adoption and adaptation to suit the needs of local industries.	New and innovative local products developed	New and innovative technologies	Number of new and innovative products developed	National data. National Research and Scientific entities REC data	5 years	Per REC	National budget RECs Partners	AU STISA-2024 Technology development institutions

Promote the use of cleaner technologies as well as information and communication technologies (ICT) in the commodities sector

Increased use of ICT and clean technologies in the commodity sector

Efficient use of technology in the commodity sector

Growth in value of investment in ICT and clean technologies

National reports and data.
National research and scientific entities
REC data

5 years

Per REC

National budget
RECs
Partners

Technology development institutions

Regional Table 24 (Pillar 4, Strategic Issue 3: Technology and Innovation)

RT 24

Pillar 4: Skills Development and R&D

Total Cost in US\$

Strategic Issue 3: Technology and Innovation

Objective 2: Provide Incentives to foster and incubate innovation to accelerate the development of commodities in Africa

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Introduce R&D and innovation culture on commodities in education systems and industries	Entrepreneurial based economy developed	Entrepreneurial based R&D and innovation curricula introduced Incentives introduced	Number of countries implemented entrepreneurial based curricula Number of incentives introduced %GDP of RDI investment	Ministries of Education Report National data REC data	5years	Per REC	National budget REC Partners	STISA
Develop mechanisms to link centres of excellence to the commodities industries	Enhanced efficiency in the commodities industries	Linkages between centres of excellence and the commodities industries established.	Number of linkages (CoE – industry). Value of centres of excellence commodity sector R&D.	National stats. Annual reports REC data	3 years	Per REC	National budget REC Partners	STISA

Regional Table 25 (Pillar 4, Strategic Issue 3: Technology and Innovation)

RT 25

Pillar 4: Skills Development and R&D

Total Cost in US\$

Strategic Issue 3: Technology and Innovation

Objective 3: Provide opportunities for training and skills development in the use of modern and innovative digital applications in the commodity sector for the benefit of the African operators

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Promote the establishment of community-based training institutions and e-learning platforms for SMEs and other relevant operators	Improved productivity and standards at community level	Community based training institutions and e-learning platforms established	Increased market share of local products.	National data REC data	5 years	Per REC	National Budgets RECs Partners	AU STISA-2024
Promote the establishment of commodity-oriented tech-hubs and start-ups	Increased uptake and scaling up of technologies produced by start-ups.	Recognised start-ups.	Number of and extent of uptake of start-up technologies.	Ministry of Science and Technology. REC data	5 years	Per REC	National budget RECs Partners	AU STISA-2024
Invest in national capabilities to harness the Fourth Industrial Revolution technologies and leapfrog development	Competitive products produced efficiently	Fourth industrial based technologies available.	Use of new technologies in the production line.	National Industrial data REC data	5years	Per REC	National Budget RECs Partners	AU STISA-2024 And AU Digital transformation Strategy

challenges in the
commodities value
chains

At Continental Level

Continental Level: Pillar 1

Continental Table 1 (Pillar 1, Strategic Issue 1: Financing and Capital Markets)

CT 1

Pillar 1: Commodity markets and pricing

Total Cost in US\$:

Strategic Issue 1: Financing and Capital Markets

Objective 1: Develop effective and competitive financial and capital markets

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME IN- DICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME- FRAME</i>	<i>ESTI- MATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRES- SPONDING/ ONGOING INITIATIVES</i>
Creating supporting policies, harmonising regulatory frameworks and undertaking other necessary actions at national, regional and continental levels for effective and competitive financial and capital markets	Competitive financial and capital markets Improved	Policies for effective and competitive financial system and capital markets in place	Level/extent of access to financial markets. 50 % of African countries have ratified the strategy document.	AU policy documents/progress reports	5 years	To be estimated by AUC	AU and partners	Independent financial institutions and banks. AfDB initiatives Afrexim Bank

Allowing free movement of capital across the continent (RECs & AU levels)	Liberalisation of financial systems /capital market	African harmonised capital markets framework issued and activated	- Number of countries that align with the African harmonised financial regulations for free movement of capital. - Number of countries with free movement regulations.	National policy documents National statistics. Central/ reserve banks	5 years	To be estimated by AUC	National budget RECs, AUC, Banks	Independent financial institutions & banks. African Securities Exchanges Association (ASEA). AfCFTA African Securities Exchanges Association (ASEA) initiatives. Afrexim Bank AfDB AU initiatives on financial institutions
Fostering Public-Private Partnerships in building the required financial and capital markets infrastructure.	Enhanced capital availability through improved financial and capital markets infrastructure	PPPs in building capital markets infrastructure realised.	Number of capital markets infrastructure elements built. Value of PPP financed infrastructure.	National documents Stock Exchange reports. ASEA reports. Banks.	5 years	To be estimated by AUC	PPP Financial Institutions. AU	
Establish and/or strengthen DFIs that focus on commodity value chain development	Value of financing along the commodity value chains increased	DFIs established and/or strengthened	Value of DFI financing along the commodity value chains increased	DFI Annual Reports	5-10 years	To be estimated by AUC	National budgets Financial institutions RECs	

Continental Table 2 (Pillar 1, Strategic Issue 1: Financing and Capital Markets)

CT2

Pillar 1: Commodity markets and pricing

Total Cost in US\$:

Strategic Issue 1: Financing and Capital Markets

Objective 2: Minimise risks associated with doing business

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIMEFRAME</i>	<i>ESTI-MATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRES-SPONDING/ ONGOING INITIATIVES</i>
Facilitating ease of doing business and mitigating financial risks	Low Risk and conducive Investment environment created	Access to credit Trade (import/export) guarantee agencies where they do not exist Ease of doing business institutions (e.g. for credits and loans) Rules and regulations that facilitates business doing	WB ease of doing business index Number of outstanding investment disputes Success rate of investment projects Country credit rating	AUC data WB doing business IMF and rating agencies	3 years	To be estimated by AUC	AU Partners Private sector AfDB/WB	Country level initiatives to improve investment climate RECs, AU & AfDB initiatives

Continental Table 3 (Pillar 1, Strategic Issue 2: Conducive Environment)

CT3

Pillar 1: Commodity markets and pricing

Total cost in US\$

Strategic Issue 2: Conducive Environment

Objective 1: Create a competitive environment through competition policy and law, building on best practices at national and regional levels

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIMEFRAME</i>	<i>ESTI-MATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRES-SPONDING/ ONGOING INITIATIVES</i>
Establishment of national and regional competition policy and legal institutions in line with the AfCFTA framework, together with an African CET to tackle commodity subsidies and dumping.	Fair market power distributed in the commodity sector in line with the AfCFTA framework	Strong policies that promote competition enacted	Number of relevant laws Level of conformity of the national and REC policies with the CFTA Value of subsidies	Country, REC and continental documents AU Competition Protocol, once adopted International subsidies databases (WTO, OECD)	5 years	To be estimated by AUC	National budgets RECs AU Partners	AfCFTA African CET

Continental Table 4 (Pillar 1, Strategic Issue 3: Structured Commodity Markets - Commodity Exchanges)

CT4

Pillar 1: Commodity markets and pricing

Total Cost in US\$

Strategic Issue 3 – Structured Commodity Markets - Commodity Exchanges

Objectives:

- a) Functional and reputable Commodity Exchanges (CEs) in all of the major African regions, covering all of the main commodity groups.
- b) Adoption of up-to-date technologies and practices for commodity trading and market data identification and availability.
- c) Establishment of viable regional Common External Tariffs (CETs) and the capacity for effective application, in order to combat unfair competition, particularly that caused by commodity production subsidies in developed countries.
- d) Improved earnings for African commodity producers and economies, by bringing longer term planning and future contracting as a way to stabilise and secure orders and promote good market place behaviour.
- e) Increased intra-regional commodity trading by volume and value, increased earnings for producers, and greater price stability to both sellers and buyers.
- f) Promote digital commodity markets removing “open cry” systems, thereby increasing transparency and increasing access to more players.

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME IN- DICATOR</i>	<i>MEANS OF MEASURE- MENT</i>	<i>TIME- FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRES- SPONDING/ ONGOING INITIATIVES</i>
Investigate the regionalisation of existing functional and reputable African CEs that could serve their wider RECs.	Report outcomes assessed and adopted by the REC	Review report of existing CEs completed	CE regionalisation reports done. REC CE strategy in place	Member states with existing CEs. RECs and national contact points	12months	To be estimated by AUC	Private sector AU Development Partners National budget	AfCFTA

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME IN- DICATOR</i>	<i>MEANS OF MEASURE- MENT</i>	<i>TIME- FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRES- SPONDING/ ONGOING INITIATIVES</i>
Identify suitable locations for establishment of well-functioning regional commodity exchanges in RECs that do not already have a reputable CE or that do not have a CE trading all of the major commodity groups.	Suitable locations for CEs, trading all the RECs major commodities, identified	Identification of locations of CEs in all RECs to trade in all of its major commodities.	REC CE locations identified	Member states lacking in CEs for all their major commodities. RECs and national contact points	12months	To be estimated by AUC	AU Development Partners National budgets	AfCFTA
Establish functional and reputable Commodity Exchanges (CEs) in all of the major African regions, covering all of its main commodity groups (agriculture, minerals/metals and energy carriers).	Market transparency and liquidity, price discovery and increased market linkages, trade finance & market information Defined trading procedures & standards	Regional functional and reputable CEs operational. Lower trading costs: increased returns to producers.	Well-functioning African CEs with better and more stable prices to producers. Enhanced intra-regional trade and linkages	RECs, national contact points and existing, expanded or new CEs	3years	To be estimated by AUC	CEs (private sector), AU Member States with CEs, Partners/ODA	AfCFTA
Strengthen market research institutions working in the commodities markets and develop linkages to existing CEs (explore possible connections to exchanges such as ECX or SAFEX as a faster method, to demonstrate increased and fairer selling on	Enhanced research quality. Enhanced commodity markets research institutions with improved	Commodity markets research institutions strengthened with links to existing CEs	Competent and reputable commodity markets research entities in all RECs	RECs, national contact points and existing CEs	5years	To be estimated by AUC	Member States with CEs, AU Partners/ODA	AMV/AMDC

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
open markets, whilst reducing costs). Organise regional campaigns for mobilising stakeholders and resources and awareness raising of CEs in Africa and of trading practices. Stakeholders: producers, warehouse keepers, traders, brokers and independent clearing house services & inspection providers, etc.).	linkages to existing CEs Enhanced awareness of CEs and of trading practices amongst stakeholders	Regional campaigns undertaken resulting in increased awareness of CEs and of trading practices	Stakeholders mobilised with raised awareness	Stakeholders in each member state, through national contact points and existing CEs	2years	To be estimated by AUC	RECs, Member States, Partners/ODA AU Stakeholders	
Provide incentives for the private sector to build or strengthen the hard and soft infrastructure needed for the establishment of commodity exchanges linking sellers and buyers more transparently and faster.	Operational CEs: lower trade costs. Enhanced CEs hard and soft infrastructure linking sellers and buyers	National incentives in place and operational. Infrastructure in place.	Improved CE functionality, scope and participation	National contact points and existing CEs	5years	To be estimated by AUC	CEs (private sector), Member States, AU Partners	
Procure appropriate technology and conduct related training for its use where needed.	Lower trade costs. (technology procured with training undertaken)	Appropriate technology operational and skilling completed	Improved CE functionality, scope and participation	National contact points and existing CEs	3years	To be estimated by AUC	CEs (private sector), Financial Institutions	
Work with the Afrexim Bank and other Development Financial Institutions to develop financing instruments for intra-African trade in commodities through	Increased use of CEs: Lower trade costs. Increased	Commodity trading financial instruments	Increased intra-African CE trade Extent of use of new	Afrexim Bank, Development Financial Institutions,	2years	To be estimated by AUC	AU, Afrexim Bank Partners	AMV/AMDC

STRATEGIC ACTIONS	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ONGOING INITIATIVES
functioning and trusted African commodity exchanges.	intra-African trade in CEs developed	developed & available	financing instruments	CEs and national contact points.				

Continental Table 5 (Pillar 1, Strategic Issue 3: Structured Commodities Markets)

CT5

Pillar 1: Commodity markets and pricing

Total cost in US\$

Strategic Issue 3: Structured Commodities Markets

Objective 2: Strengthen commodity producer associations

<i>STRATEGIC ACTIONS</i>	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ONGOING INITIATIVES
Group and organise producers into associations through awareness campaigns and training incentives.	Enhanced commodity value chains through commodity associations created and/or strengthened	<ul style="list-style-type: none"> - Awareness campaigns undertaken. - Training incentives configured and applied. - Regulations in place. 	<ul style="list-style-type: none"> Number of commodity associations established. Number of association members trained. Value of incentives. 	<ul style="list-style-type: none"> Government reports. Country commodity sectors reports. Commodity association reports. 	3 years	To be estimated by AUC	<ul style="list-style-type: none"> NGOs Private sector National budgets Other stakeholders 	Regional and Continental chambers (e.g. mines)

Continental Table 6 (Pillar 1, Strategic Issue 4: Pricing and price volatility)

CT6

Pillar 1: Commodity markets and pricing

Total cost US\$

Strategic Issue 4: Pricing and price volatility

Objective 1: Establish mechanisms to anticipate and mitigate the impact of price volatility

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Facilitate the adoption of commodity trading and risk management (CTRM) instruments, such as hedging techniques.	Increased use of risk management instruments	Decreased impact of commodity price volatility	Number of states using CTRMs Value of volatility decrease (variance)	National accounts. Professional associations. UNCTAD, ITC-Trademap	12months	To be estimated by AUC	National Treasuries. Financial institutions. CEs, brokers and traders.	Establishment of African CEs.
Where appropriate, introduce RRT (Resource Rent Tax) instruments (minerals and agriculture) to share in resource rents.	RRT instruments and laws in place.	State share of resource rents increased.	Number of member states with RRT instruments. Value of RRT receipts.	National accounts.	3years	To be estimated by AUC	National Treasuries.	
Create sovereign wealth funds (SWFs), where relevant, to ameliorate commodity price downturns (stabilisation funds), and ensure their proper management based on best practices at the global level.	SWFs established and receiving RRT flows. Rigorous SWF oversight in place.	SWFs used to dampen price booms and busts. Robust SWF management in place	Number of member states with SWFs in place. Value of SWFs as a % average commodity export earnings.	National accounts	4years	To be estimated by AUC	National Treasuries (RRT receipts)	

			Efficacy of the SWFs.					
Promote safety-net programs that reduce the effects of price volatility on the economy and vulnerable people	Safety-net programmes configured & operational	Impact on the economy and vulnerable people reduced	Number of recipients. Value of safety-net disbursements. Number of MSs joining Africa Risk Capacity Institute (ARCI) Expansion of ARCI	National accounts Africa Risk Capacity Institute data	4years	To be estimated by AUC	National Treasuries.	Africa Risk Capacity Institute (ARCI)

Continental Table 7 (Pillar 7, Strategic Issue 4: Pricing and price volatility – trade mispricing)

CT7

Pillar 1: Commodity markets and pricing

Total cost in US\$

Strategic Issue 4: Pricing and price volatility – trade mispricing

Objective 2: Eliminate trade mispricing and unlawful transfer pricing

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
STRATEGIC ACTIONS	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ ONGOING INITIATIVES
Strengthening of relevant national, regional and continental institutions responsible for international trades, such as customs, tax and audit authorities in such a way that they are able and willing to prevent unlawful transfer pricing	Unlawful transfer mispricing eliminated	Relevant institutions strengthened. Requisite customs, tax and audit policies & regulations developed and in place	Number of unlawful operations prevented. Value of transfer mispricing.	Dedicated institution reports Trade and/or fiscal administration reports	3years	To be estimated by AUC	National budgets	
Where appropriate, working with the OECD/G20 Inclusive Framework on BEPS to curb trade mispricing.	Enhanced ability to combat BEPS through trade mispricing	Greater international cooperation to identify trade mispricing	Value of increased tax receipts	National Treasuries. AfDB	2years	To be estimated by AUC	National budgets (National Treasuries)	BEPS AU IFFs initiative.

Continental Table 8 (Pillar 1, Strategic Issue 5 – Commodity producer power)

CT8

Pillar 1: Commodity markets and pricing

Total Cost in US\$

Strategic Issue 5 – Commodity producer power:

Objectives: a) Identify which African commodities could have potential producer power to stabilise prices and build the commodity value chains.

b) Configure cooperative marketing systems to realise producer power, where viable.

c) Establish joint market systems for the selected commodities to mitigate price volatility and develop their commodity value chains.

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTI-MATED COST IN US\$	FUNDING MECHA-NISMS	CORRE-SPONDING/ ONGOING INITIATIVES
Facilitate an analysis of African commodities that may have potential producer power through a large share of global production and/or resources, relative demand inelasticity and relative supply inelasticity.	Analysis of African commodities that may have potential producer power completed	Identification of African commodities with potential producer power	African potential producer power commodities list available for interrogation	All member states (contact points), RECs, international dbases	1year	To be estimated by AUC	National budgets NGOs Partners	AMV +10
Support the configuration of viable joint marketing systems for the selected commodities to realise producer power, including the financing of stockpiles (balance supply/demand) & the equitable distribution of the value chain investments (back- & forward linkages).	Viable joint marketing systems for the selected commodities configured	Joint marketing systems to realise producer power catering for balanced supply-demand and the equitable distribution benefits	African joint commodity marketing systems to realise producer available for interrogation	All member states (contact points), RECs, continental entities (AU, ECA, AfDB, et al), international producer associations (e.g. OPEC)	2years	To be estimated by AUC	Commodity producers. National budgets. NGOs. Partners/ODA	

Create producer commodity marketing bodies, possibly together with non-African producers, to stabilise prices and leverage value chain investments.	African producer power commodity marketing bodies created	Increased price, BoP stability and value chain investments realised.	Development of the selected value chains, improved and stable prices	All member states (contact points), RECs, partners, producer associations	3years	To be estimated by AUC	Commodity producers. National budgets. NGOs. Partners/ODA
Develop oversight systems to ensure the proper management of the commodity marketing bodies, based on best practices at the global level.	African producer bodies oversight systems in place.	Positive oversight reports. Clean annual audits of the producers bodies	Good management of the marketing bodies, based on global best practices	Member states (contact points), RECs, partners, African professional auditing associations	3years	To be estimated by AUC	Commodity producers. National budgets. NGOs. Partners/ODA.

Continental Level: Pillar 2

Continental Table 9 (Pillar 2, Strategic issue 1: Management and sustainable use of natural resources)

CT9

Pillar 2: Linkages and Diversification

Strategic Issue 1: Management and sustainable use of natural resources

Total Cost in US\$:

Objective 1: Ensure sustained and inclusive growth through management and sustainable use of natural resources

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING ONGOING INITIATIVES</i>
Develop and harmonise commodity sector policies and regulations governing the management and sustainable use of natural resources, which should be aligned with continental and global frameworks and instruments/tools with strong local and regional content and inclusivity dimensions.	<ul style="list-style-type: none"> - Commodity value added increased. - Inclusive growth and sustainable management of natural resources - local employment and entrepreneurship Increased - Value added of manufacturing goods improved -Economic growth and development, as well as diversification in the commodity sector are improved. 	<ul style="list-style-type: none"> - Commodity sector policies & regulations in place. - Local & regional content, beneficiation, and value addition legislation. - National policies which foster investment into manufacturing, production and technological capabilities of member states - Emergence of local/regional 	<ul style="list-style-type: none"> - Percentage of value added products traded (e.g. an increase of 5% from the baseline) - The level of equitable benefits sharing from the natural resources -Extent of jobs created from the use of natural resources -Percentage increase of value added manufacturing 	Annual reports, progress report, and economic survey reports etc.	5 years	To be estimated by AUC	National core budget and development partners	DFIs and Commercial banks RECs

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING ONGOING INITIATIVES</i>
		value chains and linkages.						
Empower regulatory agencies at different levels with appropriate funding, tools and systems to effectively implement sector-specific policies and regulations, through capacity building, training; skills development and technology transfer.	- Efficient and effective use of natural resources - Revenue collection from the natural resources sector - Improved value addition in the commodity sector.	- Capable regulatory agencies. - Regulatory reforms in order to support the work of the regulatory agencies.	- The fiscal revenue from the commodity sector increased by 20% -Transparency index gains.	National annual reports, progress reports and economic surveys	5 years	To be estimated by AUC	National core budget and development partners	DFIs and Commercial banks RECs
Build capacity of relevant stakeholders at all levels through the establishment of new or strengthened linkages with existing regional and national centres of excellence.	- Efficient and effective use of natural resources. - Inclusive involvement of stakeholders in natural resource management and utilisation.	- Linkages with existing national and regional centres of excellence, (information sharing). -Training, workshops, and seminars to build capacity of relevant stakeholders	- Percentage of fiscal revenue from the commodity sector -Transparency index	National: annual reports, progress reports and economic surveys	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING ONGOING INITIATIVES</i>
Develop platforms for disseminating and sharing market information, policies and best practices on management and sustainable use of all natural resource to all stakeholders.	-Ease of market access -Increased business collaborations/synergies	-Platforms where government meets with stakeholders -Private sector associations and Chambers of commerce, industry & mines.	- Level of increase in trade volume.	National: annual reports, progress reports and economic surveys	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks
Promote the use of digital commodity management applications	-Ease of market access -Increased business collaborations/synergies	Digital commodity management applications	-Level of increase in trade volume - Time to make a trade. - LPI (logistics performance index: WB)	National: annual reports, progress reports and economic surveys LPI	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks

Continental Table 10 (Pillar 2, Strategic Issue 2: Value Chain development)

CT 10

Pillar 2: Linkages and Diversification

Strategic Issue 2: Value Chain development

Total Cost in US\$:

Objective 1: Promote competitive, inclusive and responsible national and regional value chains to maximise the linkage opportunities and for greater integration into local, regional and continental markets, as well as global markets.

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Develop regional commodity strategies at the Regional Economic Community (REC) level for both agricultural commodity value chains and mineral commodity value chains.	Increased value addition and linkages realisation along each regional commodity value chains Greater scale economies realised	Key regional commodity value chains mapped at continental level. - Development strategies in place for all continental key commodity chains.	- Number of value chains mapped with strategies. - Value & volume of production. - Value of value addition. - Value of local-regional content. - Value of import displacement.	National accounts. UNCTAD, ITC Trademap. National statistics. REC statistics	2years	To be estimated by AUC	National budgets. Partners. Commodity producer associations (e.g. Chambers of mines)	AU AMDC AMV regionalisation (RMVs) REC FTAs. AfCFTA Afrexim Bank
Develop national and regional commodity value chain regulatory frameworks, which recognise regional and local content, aligned with existing continental initiatives (CAADP, AIDA, AMV, etc.), which	- Competitive and inclusive national and regional value chains. - Commodity value chain development regulatory frameworks in place & operational.	- Policies and strategies on commodity values chains established, which are aligned to regional and continental initiatives (CAADP,	- Level of increase in trade volume in value added commodity products -Level of diversification	National: annual reports, progress reports and economic surveys.	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ONGOING INITIATIVES
leverage the opportunities created by the AfCFTA based on the comparative advantages of countries and regions. Prioritise the development of key commodity value chains (to provide the feedstocks for African growth, development and intra-African trade), over feedstocks destined for extra-African markets.	- Increased local/regional content along value chains. - Greater intra-African trade and investment. - Enhanced market connectivity - Increased FDI and DDI - Increased industrialisation and technological advancement	AIDA, AMV/RMV, etc.) -Policies and legislation on integrated Special Economic Zones (SEZs) -Integrated SEZs operational	-Level (value) of linkages in value chains - Value of new investments. - Number of new jobs created. - Value of increased in trade volume in value added products	National statistics. REC statistics - National: annual reports, progress reports and economic surveys. National statistics. REC statistics UNCTAD, ITC Trademap	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks
Creating, encouraging and strengthening of frameworks that will facilitate the development of cross-border value chain projects in the manufacturing and industrial sector (including the 4 th IR technology)	-Competitive and inclusive national and regional value chains developed. -Investments in cross-border industrial value chain enhanced. - Cross-border logistics costs lowered.	- Cross-border industrial development cooperation instruments (e.g. MOUs, agreements etc.) on value chain development projects. - List of priority cross-border value chain industrial projects	- Number of cross-border industrial projects. - Value of new investments (FDI & DDI). - LPI value.	- National: annual reports, and progress reports. Multilateral indices	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ONGOING INITIATIVES</i>
Create, encourage and strengthen frameworks and projects to promote cross-border commodity value chains, through incentives and the removal of tariff barriers and NTBs.	<ul style="list-style-type: none"> - Ease of market access. - Increased business collaboration & synergies (B2B, private sector associations and chamber of commerce). - Increased intra-REC and intra-African trade within commodity value chains. 	<ul style="list-style-type: none"> - Platforms & institutions for engagement between government, private sector and academia - Incentives configured and available. 	<ul style="list-style-type: none"> - Value of increase in trade volume. - LPI ratings. - Value of incentives disbursed. 	National: annual reports, progress reports and economic surveys	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks AfCFTA REC FTAs
Facilitate the development of local manufacturing, by providing targeted incentive packages (fiscal, regulations, business development services, etc.) to support commodity value chain development.	<ul style="list-style-type: none"> - Ease of market access - Increased business collaboration/synergies (ecommerce) 	<ul style="list-style-type: none"> - Policies and regulations for the digital management of commodities. - Training and capacity building on digital technological management of commodities. - Enabling infrastructure for the digital management 	<ul style="list-style-type: none"> - Level of digitisation. - Value of incentives disbursed. - Value of extra-African import displacement. - Value of benefited commodity exports. 	National: annual reports, progress reports and economic surveys. UNCTAD, ITC Trademap Multi-lateral dbases.	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks
Create platforms for engagement between government, private sector (commodity producers, inputs suppliers and processors), state entities and other stakeholders in implementing a common	<ul style="list-style-type: none"> - Increased collaboration between state and private sector on commodity value chain development (PPPs). 	<ul style="list-style-type: none"> - Common commodity value chain development visions, policies and strategies in place. - Platforms/forums established. 	<ul style="list-style-type: none"> - Number of PPP engagements. - Value of PPP projects. - Number of adopted visions/strategies/policies 	National: annual reports, progress reports and economic surveys.	2 years	To be estimated by AUC	National core budget. Private sector. Development partners	REC and Continental visions, strategies & policies (e.g. AMV/RMV,

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
vision, policy and strategy. Secure resources to support commodity linkages development.	- Increased resources for commodity linkages development.		- Value of resources for commodity linkages development.					Malabo, CAADP)

Continental Table 11 (Pillar 2, Strategic Issue 3: Resilient infrastructure development)

CT 11

Pillar 2: Linkages and Diversification

Strategic Issue 3: Resilient Infrastructure development

Total Cost in US\$:

Objective 1: Optimise the performance of the commodity value chains through the development of sustainable and integrated requisite infrastructure and improve access to infrastructure.

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Plan, design and implement resilient infrastructure development projects at national, regional and continental levels to facilitate trade, value addition and	- Ease of doing business facilitated - Commodities value chain infrastructure improved. - Performance of the commodity sector	- PFSs & Feasibility studies identifying commodity nodes completed. - Integrated sustainable infrastructure-industry master plans developed. - Resilient infrastructure developed	- % reduction in transaction costs. - LPI index increased by 20%. - Ease of Doing	National: annual reports, progress reports and economic surveys. REC stats.	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks Presidential Infrastructure Champion Initiative (PICI)

<p>supplier industries, along the commodity value chains, through innovative financing mechanisms, such as public-private partnerships (PPP) and venture capital funds (VCFs).</p>	<p>improved/ optimised. - Value addition and local-regional content enhanced. - Intra-African trade along the commodities value chains increased.</p>	<ul style="list-style-type: none"> - Resource mobilisation plan completed. - PPP & VCF financing utilised. - Lower logistics costs. - Enhanced Ease of Doing Business. - Greater intra-African trade. 	<p>Business lowered by 20%. - Intra-African in commodity value chain products increased by 50%. - % realisation of PIDA and PICI projects</p>	<p>AfDB & ECA stats. -Doing business indicator reports (Ease of Doing Business Index). LPI index dbase. UNCTAD, ITC Trademap dbase.</p>			<p>Programme in Infrastructure Development in Africa (PIDA)</p>	
<p>Prioritise the development of national components of cross-border infrastructure projects, including existing regional initiatives.</p>	<ul style="list-style-type: none"> - Ease of doing cross-border business facilitated - Performance of the commodity sector improved/ optimised. 	<ul style="list-style-type: none"> - Priority cross-border infrastructure projects list developed. - Feasibility studies on cross-border infrastructure projects (for Commodity nodes) done. -Integrated Cross-border infra-structure-industry sustainable master plans completed. - Resilient cross-border infrastructure projects developed. - Resource mobilisation plans in place. 	<ul style="list-style-type: none"> - Investment in cross-border infrastructure for com-mmodity value chains trade up by 20%. - Cross-border infra-structure costs decreased by 20%. - Cross-border trade up by 20%. 	<p>National: annual reports, progress reports and economic surveys. Doing business indicator reports. LPI Index dbase. UNCTAD, ITC- Trademap dbase. AfDB & ECA stats.</p>	<p>5 years</p>	<p>To be estimated by AUC</p>	<p>National core budget and Development partners</p>	<p>DFIs and Commercial banks Presidential Infrastructure Champion Initiative (PICI) Programme in Infrastructure Development in Africa (PIDA)</p>

Encourage cooperation among AU MSs and RECs in attracting investment into sustainable infrastructure to facilitate greater commodity beneficiation, local content and regional value chain development, in line with the objectives of the AfCFTA.	<ul style="list-style-type: none"> - Investment (both domestic and FDI) into requisite resilient infrastructure increased. - Greater commodity bene-ficiation, local content and regional value chain development. 	<ul style="list-style-type: none"> - Industrial and investment policies and cooperation frameworks in place and approved. - National Investment Promotion Agencies (IPA) established/ strengthened. 	<ul style="list-style-type: none"> - Investment in commodities infrastructure, between African countries increased by 20%. 	National: annual reports, progress reports and economic surveys. REC stats.	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks Presidential Infrastructure Champion Initiative (PICI) Programme in Infrastructure Development in Africa (PIDA)
Encourage, where applicable, transparent and accountable investment protocols in relation to infrastructure projects development with commodity seeking firms or countries, which support value chain development in line with the AU AfCFTA Decisions.	<ul style="list-style-type: none"> - Commodities diversification (value addition & local content) promoted. - Reduced illicit financial flows in infrastructure investments. - Infrastructure investment facilitated by commodity buyers increased. 	<ul style="list-style-type: none"> - Packaging of incentives to encourage investors for beneficiation and local content in commodity value chains. - Valuation of economic resources and allocation of predetermined value for financing of infrastructure projects 	<ul style="list-style-type: none"> - Levels of diversification increased for beneficiation & local content. - Amount of illicit flows in infrastructure reduced. 	National: annual reports, progress reports and economic surveys.	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks Presidential Infrastructure Champion Initiative (PICI) Programme in Infrastructure Development in Africa (PIDA)
Grant countries or firms access to commodities to leverage favourable financing of	<ul style="list-style-type: none"> - Simplified and business friendly regulatory frameworks. 	<ul style="list-style-type: none"> - Capacity building of institutions which provide integrated soft infrastructure. - “Infrastructure4commodities” 	<ul style="list-style-type: none"> - Better ease of doing business index. 	National: annual reports, progress reports and	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks Presidential Infrastructure

infrastructure, mindful of the need for proper resource valuation.	- Infrastructure investments increased.	Model Offset Agreement developed and available.	- Greater infrastructure investment. - Number of offset agreements.	economic surveys. Ease of Doing Business Index.				Champion Initiative (PICI) Programme in Infrastructure Development in Africa (PIDA)
Leverage resource rents, particularly from mineral commodity extraction, to establish infrastructure configured for use by other sectors (Third Party Access).	- Improved economies of scale at national and regional level. - Introduction of resource rent tax instruments (RRT). - Enhanced infrastructure.	- Inclusion in national development plans of regional plans, initiatives, strategies etc. - RRT instruments adopted. - Increased RRT revenues invested in infrastructure.	- % of 3 rd party utilisation of resource infrastructure. - Resources infrastructure projects value.	National: annual reports, progress reports and economic surveys.	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks Presidential Infrastructure Champion Initiative (PICI) Programme in Infrastructure Development in Africa (PIDA)
Build and strengthen institutions which provide integrated soft infrastructure in order to simplify regulatory frameworks and make them more user-friendly.	- Increased use of integrated soft infrastructure. - Simpler & user-friendly regulatory frameworks. - Stronger integrated soft infrastructure entities.	- Ease of infrastructure provision enhanced. - Regulatory frameworks simplified.	- Investment in resilient infrastructure increased by 20%. - Time to navigate regulatory systems	National: annual reports, progress reports and economic surveys. Ease of Doing Business Index.	3 years	To be estimated by AUC		

Strengthen linkages with regional integration initiatives to create economies of scale for new regional infrastructure investments.	- Regional infrastructure scale economies projects increased. - Increased investment in infrastructure.	- Regional scale economies infrastructure projects realised.	decreased by 20% - Number and value of regional infrastructure projects increased by >20%.	National: annual reports, progress reports and economic surveys. REC stats.	5 years	To be estimated by AUC
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CT 12

Pillar 2: Linkages and Diversification

Total Cost in US\$

Strategic Issue 4 – Quality Infrastructure systems development

Objectives: Promote sustainable production, trade and consumption of value-added products through the development and harmonisation of QIS.

Continental Table 12 (Pillar 2, Strategic Issue 4: Quality Infrastructure systems development)

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ ONGOING INITIATIVES
At the continental level, harmonise quality policy for a coherent regulatory framework with regard to technical barriers to trade by means of TBT/SPS annexes to the AfCFTA protocol.	- Continental harmonised framework in place. - Improved quality of products and ease of trade at national and regional levels	- National quality policy on Technical Barriers to Trade developed, in line with continental framework - Strengthening the systems of the respective Bureaus of Standards.	- Enhanced level of quality of products. - Greater ease of trade.	National: annual reports, progress reports and economic surveys. REC stats. AU ARSO data. Afrimet	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks ARSO initiatives
Promote the establishment of national, regional and continental QIS based on international best practices.	- Sustainable production, trade, and consumption of value added products increased	- National QIS developed. - Increased in trade of value added products	- Increased in trade and consumption of value added products of 20%.	National: annual reports, progress reports and economic surveys	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks
Establish and strengthen quality infrastructure institutions and pan-	Sustainable production, trade and consumption of value	- Quality infrastructure institutions (National Bureaus of Standards)	- 20% increase in trade in value added commodities	National: annual reports, progress reports and	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks ARSO

African platforms such as Pan African Quality Infrastructure (PAQI), in order to improve the competitiveness of the commodity sector.	added products improved	established and/or strengthened.		economic surveys. ARSO data PAQI data				PAQI
Promote the establishment of mutual recognition arrangements (MRAs) across the regional economic communities (RECs).	Improved mutual recognition arrangements among RECs	Mutual recognition arrangements among RECs established. MS laws/regulations for regional mutual recognition in place.	Number of mutual recognition arrangements.	MSs RECs (regional level)	5 years	To be estimated by AUC	REC budgets Development Partners	PAQI
Promote the establishment of mutual recognition arrangements (MRAs) across the regional economic communities (RECs).	Improved mutual recognition arrangements among RECs	Mutual recognition arrangements among RECs established. MS laws/regulations for regional mutual recognition in place.	Number of mutual recognition arrangements.	MSs RECs (regional level)	5 years	To be estimated by AUC	REC budgets Development Partners	PAQI
Build the capacity of commodity producers, beneficiators and inputs suppliers on quality standards.	- Improved market access for producers, beneficiators and inputs suppliers.	-Training, workshops and seminars on quality standards for value chain players. - Enhanced value chain skills.	- Increased trade in volume & value along the value chains.	National/REC: annual reports, progress reports and economic surveys	5 years	To be estimated by AUC	National core budget and Development partners	DFIs and Commercial banks

Continental Level: Pillar 3

Continental Table 13 (Pillar 3, Strategic Issue 1: Governance - political and institutional governance)

CT 13

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 1 on Governance: political and institutional governance

Objectives: Promote adherence to effective political governance frameworks

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Promote meritocratic leadership in the public sector for good governance of the commodity value chains	Meritocratic leadership in the public sector established.	Meritocratic policies in the public sector	Improved public service delivery. Optimised commodity value chains	National policy documents/progress reports. APRM	5 years	To be estimated by AUC	International partners AU Continental Governance Programs	Public-private sector partnerships
Establish and maintain independent, legal and political institutions to ensure the Rule of Law	Independent, legal and political institutions established.	Independent, legal and political institutions. Institutionalisation of Independent, legal and public entities.	Number of well-governed national entities	National policy documents/progress reports. Auditor General Reports APRM	5-10 years	To be estimated by AUC	AU Continental Governance Programs	Independent institutions
Strengthen the capacity of public institutions to enforce laws and policies for the management of commodity resources;	Enhanced public sector delivery. Capacity of public institutions strengthened	Empowered public institutions	Level/quality of service from public institutions improved. APRM	Number of public officials and independent institutions capacitated.	5-10 years	To be estimated by AUC	private institutions, international partners AU Continental	Public-private sector partnerships APRM IIAG

enforce the law through credible and independent institutions to monitor the activities

Ibrahim index of African Governance (IIAG) Afro-Barometer
Resource Governance Index (NRGI). World Governance Index (WGI) APRM Ibrahim index of African Governance (IIAG) Afro-Barometer
Resource Governance Index (NRGI). World Governance Index (WGI)

Governance Programs

Continental Table 14 (Pillar 3, Strategic Issue 2 on Governance - Corporate governance)

CT 14

Pillar 3: Governance and Enabling Environment

Strategic Issue 2 on Governance: Corporate governance

Objectives: Design and implement corporate governance frameworks based on best practices

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Put in place corporate accountability and transparency laws and regulations to ensure	Corporate laws and regulations formulated.	Policies on corporate governance in place.	Corporate citizenship Improved. Clean audit reports.	Level of corporate accountability and transparency.	5 years	To be estimated by AUC	National budget	N/A

good corporate citizenship			Resource Governance Index (NRGI).	Resource Governance Index (NRGI). EITI Reports.				
Promote and enforce appropriate laws (company, labour, occupational and health hazards, unionisation and labour rights)	Appropriate laws (company, labour, occupational and health hazards, unionisation and labour rights) promoted and enforced.	Improved corporate governance and social responsibility	Laws and regulations in place. Progress reports on company activities.	Number of National laws & regulations in place. CSR indices. Audit reports. WCGI.	5 years	To be estimated by AUC	National budget	N/A
Promote codes for good business ethics.	Codes of good business ethics promoted	Codes of business ethics	Improved social responsibility King IV ratings	CSR indices. World Corporate Governance Index (WCGI).	5 years	To be estimated by AUC	National and private sector budgets	

Continental Table 15 (Pillar 3, Strategic Issue 3: Governance - Social governance and inclusivity

CT 15

Pillar 3: Governance and Enabling Environment

Total Cost US\$

Strategic Issue 3 on Governance: Social governance and inclusivity

Objectives: Enhance social and inclusive participation of all stakeholders in the commodity sector

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
STRATEGIC ACTIONS	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ ONGOING INITIATIVES

Establish mechanisms for inclusive participation by all stakeholders in the commodity sector	Mechanisms for inclusive participation by stakeholders established.	Stakeholder engagement forums. CSR audits	Improved participation of various stakeholders	Frequency of stakeholder engagements. CSR indices	5 years	To be estimated by AUC	National and private sector budget	Public-private partnerships
Promote equitable access to and ownership of factors of production, as well as to social and economic infrastructure services.	Equitable access and ownership of factors of production promoted.	Equitable access and ownership of factors of production.	Access and ownership of factors of production.	Extent of access and quantum of ownership.	5- 10 years	To be estimated by AUC	National and private sector budget	Public-private partnerships
Develop advocacy programs addressing social issues in the commodity sector	Advocacy programs on social issues developed.	Advocacy on social issues operational.	Programmes on social issues. Ranking on CSR indices.	Extent of engagements on social issues. CSR Indices.	5 years	To be estimated by AUC	National and private sector budget	Public-private sector partnerships
Develop, legislate and promote equity practices, taking into account the interests and needs of vulnerable groups	Enhanced equity.	Legislation on equity practices for women, youth and other vulnerable groups developed and in place.	Legislation and promotional activities.	Extent of access to legislation on equity practices. CSR Indices. NRGI.	5 years	To be estimated by AUC	National budget	Public-private sector partnerships

Continental Table 16 (Pillar 3, Strategic Issue 4: Governance - Economic governance)

CT 16

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 4 on Governance: Economic governance

Objectives: Promote and implement economic governance frameworks that support sustainable development

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Establish and implement sound and transparent public finance management systems	Sound and transparent public finance management systems established	Implementation of sound and transparent public finance management systems	Public finance management systems. Clean audit reports. Ranking on independent public finance management rating organisations	Number of systems in place. NRGI data EITI data Transparency International data. AfDB data.	5-10 years	To be estimated by AUC	National and private sector budget	N/A
Negotiate and implement fair and equitable FDI, agreements, contracts, leases and concessions in the commodity sector.	Increased benefits to Africa from fair and equitable investment agreements	Fair FDI agreements and contracts in the commodity sector negotiated and implemented.	Number of fair investment Agreements and Contracts	National policies on investment. NRGI. WCGI. AU AMDC.	5-10 years	Per country	National and private sector AfDB – ALSF (African Legal Support Facility) Connex Partners	Pan African Investment Code (PAIC)

Reviewing existing taxation systems and regimes in order to promote economic governance in the commodity sector.	Existing taxation systems and regimes reviewed.	Modern taxation systems and regimes. Greater share of resource rents collected.	Functional taxation systems and regimes. Resource rent tax (RRT) instruments.	Extent of tax regime modernisation. "Paying Taxes" annual reports. RRT instruments established. Tax receipts from commodities sector.	5-10 years	To be estimated by AUC	National budgets	Independent institutions & developmental partners. APRM
Implement factor market integration policies in line with AU's Boosting Intra-African Trade (BIAT) cluster.	Access to national, regional and continental commodity markets	Domestication of Factor Market Integration cluster of BIAT.	Increased volumes of trade in goods and services Implementation of national policies on Factor Market Integration cluster of BIAT.	ITC Trademap National and Regional trade data	5-10 years	To be estimated by AUC	AUC Budget.	AU BIAT Action Plan and AfCFTA
Develop and promote continental/regional local content policies ³⁴	Continental/regional and local-regional content policies developed. Imports displacement.	Local-regional content policies. Increased visibility of locally produced products	Increased visibility of locally produced goods. Improved BoP for the commodity sector. Number of MSs with local & regional	Quantities of locally produced goods. UNCTAD, ITC-Trademap data National statistics. MS local-regional content	5-10 years	To be estimated by AUC	National and private sector budget. RECs data	Public-private partnerships and independent institutions. AfCFTA AMV AIDA

³⁴ Develop guidelines for local content in Africa

Formulate, implement and enforce laws to counter money laundering and illicit financial flows	Enhanced revenue collection	Unified laws to counter money laundering and illicit financial flows formulated and applied. Implementation of policies on money laundering and illicit financial flows	content regulations in place Quantities of locally produced goods. Value of increased tax revenues. Value of BoP impact	compliance offices. . National Taxation Office/Authority National Bank data	5-10 years	To be estimated by AUC	National budget	N/A
Implement transparent and accountable economic policies that promote access to national, regional and continental markets of commodities.	Access to national, regional and continental commodity markets	Transparent and accountable economic policies implemented.	Value of increased economic policies to facilitate market access for commodities	National International and African CEs data. ITC-Trademap data	5-10 years	To be estimated by AUC	National budget	African Association of Central bankers

Continental Table 17 (Pillar 3, Strategic Issue 5: Governance - Environmental governance)

CT 17

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 5 on Governance: Environmental governance

Objectives: Develop, strengthen and adhere to sustainable environmental governance

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ ONGOING INITIATIVES
Develop and implement policies, legislation, procedures and practices that encourage conservation and sustainability in the commodity sector in accordance with international standards	Enhanced conservation and sustainability in the commodities sector implemented	Number of policies and procedures introduced that encourage conservation and sustainability in the commodity sector	Conservation and sustainability procedures and practices operational. Ranking on independent environmental & sustainability indices	National reports & data Environmental Sustainability Index (ESI). Environmental Performance Index (EPI)	5-10 years	To be estimated by AUC	National budget	UN SDGs ISO 14000
Develop strategies for mitigation, adaptation and resilience to climate change of the commodity sector	Enhanced mitigation, adaptation and resilience to climate change of the commodity sector	Strategies for mitigation, adaptation and resilience to climate change developed	Number of laws & regulations Ranking on independent climate change & sustainability indices	National policies & documents Environmental Sustainability Index (ESI). Environmental Performance Index (EPI)	5-10 years	To be estimated by AUC	National budget	UN SDGs

Establish systems for environmental protection	Enhanced environmental protection.	Environmental protection systems in place.	GHG emissions from the commodities sector Improved environmental protection metrics	Other international indices National compliance authorities Ranking on environmental indices.	5 years	To be estimated by AUC	National budget	AU Initiatives SDGs Ramsar International initiatives
Create governance frameworks that respect the human population as well as the natural ecosystem.	Enhanced respect for the human population and the natural ecosystem	Frameworks that respect human population and the natural ecosystem in place	Number of frameworks in place. Human development indices Environmental sustainability indices.	Number of frameworks in place. Environmental Performance Index (EPI). UNDP HDI	5 years	To be estimated by AUC	National budget	AU Initiatives UN SDGs Independent institutions
Establish policies and laws that mitigate pollution, promote land restoration and conserve wet lands	Improved pollution mitigate, land restoration and conservation of wetlands.	Policies on pollution, land restoration and conservation of wetlands	Decreased pollution indices. Area of land restored & wetlands conserved.	National stats. Independent monitoring agencies. Ramsar	5 – 10 years	To be estimated by AUC	National budget	RAMSAR ICUN WWF UNDP

Continental Table 18 (Pillar 3, Strategic Issue 6: Enabling Environment - Policy and legal/regulatory environment)

CT 18

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 6 on Enabling Environment: Policy and legal/regulatory environment

Objectives: Ensure the development, implementation and enforcement of sound policy and legal/regulatory frameworks

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Mainstream the AU Commodity Strategy in national development plans	AU Commodity Strategy in national development plans mainstreamed	National commodity strategies in place. Mainstreamed sectoral policies	Number of sectoral policies on commodities.	National focal points MS reports	5-10 years	To be estimated by AUC	National budget	AMV domestication.
Strengthen the capacity of legal and policy institutions. (Courts, etc.)	Capacity of legal and policy institutions strengthened	Capacity building programmes for legal institutions configured and operational.	Number of capacity building activities/initiatives	MS reports & data	5-10 years	To be estimated by AUC	National budget and development partners	IDLO programmes. Independent institutions
Prioritise the use of African judicial systems to adjudicate whenever disputes or human rights violations occur.	Improved and fairer adjudication. Enhanced African legal integrity	African judicial systems prioritised to adjudicate whenever disputes or human rights violations occur	Frequency of use of African judicial systems. Number judicial systems implemented	National reports/data. African judicial systems data.	5-10 years	To be estimated by AUC	National budget	APRM

Continental Table 19 (Pillar 3, Strategic Issue 7: Enabling Environment - Human rights)

CT 19

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 7 on Enabling Environment: Human rights

Objectives: Promote, defend, respect, uphold and enforce human rights in the commodity sector

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ONGOING INITIATIVES</i>
Protect, defend, respect and remedy the rights of women, children, local communities and other vulnerable groups	Rights of women, children, local communities and other vulnerable groups protected.	Laws and regulations that protect the rights of women, children, local communities and other vulnerable groups in place.	Number of legal documents /policies Frequency of violations	National stats/data. African Commission on Human and Peoples' Rights ISHR. Human Rights Watch (HRW). Global Voices. Media reports.	5-10 years	To be estimated by AUC	National budget and development partners	AU Banjul Charter. AU Maputo Protocol. AU ACRWC. Independent institutions African Court on Human and Peoples' Rights
Recognise and respect the understanding of cultural and religious nuances in the exploitation of commodities.	Increased recognition of cultural and religious nuances.	Policies, laws and regulations on cultural and religious nuances in the exploitation of commodities	National policies and public pronouncements. Number of infringements.	National data. African Commission on Human and Peoples' Rights ISHR. Human Rights Watch (HRW). NRGI	5 -10 years	To be estimated by AUC	National budget and development partners	AU Banjul Charter. Independent institutions African Court on Human and

								Peoples' Rights
Enact laws and regulations that promote the disclosure of human rights abuse and establish remedial procedures	Decrease in human rights abuses	Laws and regulations that promote human rights abuse disclosure and remedial procedures in place	Laws & regulations in place. Number of human rights abuses reported.	National data. African Commission on Human and Peoples' Rights. ISHR. Human Rights Watch (HRW). Media.	5-10 years	To be estimated by AUC	National budget and development partners	AU African Charter on Human and Peoples' Rights. Independent institutions African Court on Human and Peoples' Rights

Continental Table 20 (Pillar 3, Strategic Issue 8: Enabling Environment - Land tenure and distribution)

CT 20

Pillar 3: Governance and Enabling Environment

Total Cost in US\$

Strategic Issue 8 on Enabling Environment: Land tenure and distribution

Objectives: Create and implement appropriate mechanisms with regard to land tenure for sustainable exploitation of commodities

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ONGOING INITIATIVES
Develop effective beneficial land access, ownership laws and rights	Enhanced beneficial land access, ownership laws and rights	Land ownership laws and rights in place.	Number of countries with Laws operational.	National stats & data.	5-10 years	To be estimated by AUC	National budget	N/A

Modernise and digitalise cadastral systems.	Efficacy of cadastral systems improved.	Modern digitised cadastral systems operational.	Usage of the cadastral system. Speed of usage.	National stats & data.	10 years	To be estimated by AUC	National budget	AMV
Develop and strengthen regulatory frameworks for purposes of land restitution to address past injustices and land dispossession.	Enhanced land restitution to address past injustices and land dispossession.	Land laws and policies in place	Number of people benefiting from restitution. Area of land restituted.	National stats & Government reports	10 years	To be estimated by AUC	National budget	N/A
Develop policies and effective systems for land evaluation in cases of development-driven expropriation for public interest, to ensure appropriate computation of compensation where necessary	Improved computation of fair compensation for land expropriation.	Policies and effective systems for land evaluation developed. Land laws and policies in place.	Compensation value per Ha.	National stats & Legal judgements and awards.	10 years	To be estimated by AUC	National budget	N/A

Continental Level: Pillar 4

Continental Table 21 (Pillar 4, Strategic Issue 1: Skilled labour)

CT 21

Pillar 4: Skills Development and R&D

Total Cost in US \$

Strategic Issue 1: Skilled labour

Objectives: Develop the human capital in order to improve the performance of the commodities sector by enhancing technical capacities, skills portability, and ensuring inclusiveness

STRATEGIC ACTIONS	Results		Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ ONGOING INITIATIVES
Undertake training needs assessments, develop and promote harmonised training programmes at national level (vocational and higher level education), as well as put in place certification frameworks.	Skills, capacities and certification enhanced and developed to respond to industrialisation.	Training needs assessment undertaken. Harmonised training programmes and curricula developed and promoted. Certification frameworks in place.	Number of countries with: - Training needs assessment, - Harmonised curricula, - Certification frameworks	National policy progress reports National stats & data. UNDP HDI	5 years	To be estimated by AUC	Member states Partners Private Sector	STISA TEVET
Design affirmative actions to ensure the inclusiveness of vulnerable persons (including youth, women, and physically challenged persons) in the commodity sector	Enhanced participation of vulnerable persons, including youth, women, and physically challenged persons, in the commodity sector	Policies and incentives for enhanced inclusiveness, in place.	Percentage of vulnerable persons profitably engaged in the commodity sector.	National Statistics. NGOs	5years	To be estimated by AUC	National budgets Partners	RECs Financial Institutions

Encouraging the creation of specialised tertiary education programmes, in particular Science, Technology, Engineering and Mathematics (STEM)	Enhanced STEM skills	Specialised tertiary STEM education programmes operational.	Number of STEM trainees/students Number of STEM graduates.	National Statistics.	5 years	To be estimated by AUC	National budgets Private sector Partners	STISA TEVET
Develop regional partnerships (government, private sector) for training and innovation in support of research	Enhanced training and innovation in support of research	Private sector participation in training and research	Value of: - State investment - Private sector investment.	National Statistics National Research Councils. Tertiary education entities. Government reports. National Statistics	5 years	To be estimated by AUC	Member states Private Sector	STISA TEVET
Incentivise private companies to invest in training, research and innovation	Increased investment in training and RDI (Research, Development & Innovation)	Incentives developed and used.	Value of incentives. Number of people trained.	National Statistics				STISA TEVET
Promote linkages between research institutions, academia and the private sector to facilitate technology transfer with a view of improving value addition to commodities and commercialisation (mass production of innovation)	Value addition through linkages improved	Linkage based coordination mechanisms established	Number of coordinating mechanisms agreed.	National progress reports	5years	To be estimated by AUC	National Budget Partners	Inter-ministerial working groups

Establish policies that facilitate development of the local manufacturing sectors.	Growth of local manufacturing.	Effective implementation of local manufacturing based industrial policies.	Number of locally manufactured products Value of local manufacturing	National stats. National production index reports	5 years	To be estimated by AUC	National budget	
Establish specialised technical centres for commodity development in member states	Improved skills in commodity development	Commodity based specialised technical centres established	Number of technical centres operational. Number of people skilled.	National stats. National reports	5 years	To be estimated by AUC	National budgets	
Establishing R&D funds in member states	R&D funding increased.	R&D funds established	Value of R&D funding. Number of world class locally produced products	National stats. National economic reports	5 years	To be estimated by AUC	National budgets	Import and export taxes

Continental Table 22 (Pillar 4, Strategic Issue 2: Entrepreneurship)

CT 22

Pillar 4: Skills Development and R&D

Total Cost in US\$

Strategic Issue 2: Entrepreneurship

Objectives: Enhance the capacity of institutions to nurture entrepreneurial culture for development and growth of commodities sector

<i>STRATEGIC ACTIONS</i>	<i>Results</i>		<i>Monitoring and Evaluation (M&E)</i>			<i>Financing and Resource Mobilisation</i>		
	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Build capacity of institutions to	Increased number of locally made products.	Fully functional institutes offering	Number of institutes.	National stats. Government reports.	5 years	To be estimated by AUC	Levies.	AU SME STRATEGY

train/nurture entrepreneurship Establish innovative business incubators that add value to the commodities sector.	Innovative and competitive products in the market increased	entrepreneurial training Established incubators	Number of graduates. Number of incubators set up. Value of incubator budgets.	Business Registries National stats. Government reports. Progress reports	5 years	To be estimated by AUC	National budget and levies	AU SME STRATEGY
Develop and harmonise policy and regulatory frameworks that promote entrepreneurship	Growth in local businesses and turnover.	Efficient and conducive environment for local business growth (ease of doing business) established.	Increase in number new business developed. Increase in value-added.	National stats. Government reports Registrar generals report	5 years	To be estimated by AUC	Business license fees	AU SME STRATEGY
Develop and harmonise schemes that facilitate the formalisation of informal labour markets and micro-, small, and medium enterprises (MSME)	Increased economic contribution from MSMEs. Increased formal labour.	Schemes that facilitate the formalisation of informal labour markets and micro-, small, and medium enterprises in place and operational.	Number of workers formalised. Number of MSMEs formalised.	National stats. Government reports Registrar of companies	5 years	To be estimated by AUC	National budget and levies	AU SME STRATEGY

Continental Table 23 (Pillar 4, Strategic Issue 3: Technology and Innovation)

CT 23

Pillar 4: Skills Development and R&D

Total Cost in US \$

Strategic Issue 3: Technology and Innovation

Objective 1: Enhance access to cleaner, modern and affordable technologies and encourage adaptation, adoption and reverse engineering

Results

Monitoring and Evaluation (M&E)

Financing and Resource Mobilisation

<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/ ONGOING INITIATIVES</i>
Encourage reverse engineering, technology transfer, technology adoption and adaptation to suit the needs of local industries.	New and innovative local products developed	New and innovative technologies	Number of new and innovative products developed	National stats. National Research and Scientific council	5years	To be estimated by AUC	National budget Partners	AU STISA-2024 Technology development institutions
Promote the use of cleaner technologies as well as information and communication technologies (ICT) in the commodities sector	Increased use of ICT and clean technologies in the commodity sector	Efficient use of technology in the commodity sector	Growth in value of investment in ICT and clean technologies	Government reports and data. National research and scientific councils Technology Readiness Index	5years	To be estimated by AUC	National budget Partners	AU STISA-2024 Technology development institutions

Continental Table 24 (Pillar 4, Strategic Issue 3: Technology and Innovation)

CT 24

Pillar 4: Skills Development and R&D

Total Cost in US\$

Strategic Issue 3: Technology and Innovation

Objective 2: Provide Incentives to foster and incubate innovation to accelerate the development of commodities in Africa

Results			Monitoring and Evaluation (M&E)			Financing and Resource Mobilisation		
<i>STRATEGIC ACTIONS</i>	<i>OUTCOME</i>	<i>OUTPUT</i>	<i>OUTCOME INDICATOR</i>	<i>MEANS OF MEASUREMENT</i>	<i>TIME-FRAME</i>	<i>ESTIMATED COST IN US\$</i>	<i>FUNDING MECHANISMS</i>	<i>CORRESPONDING/</i>

**ONGOING
INITIATIVES**

Introduce R&D and innovation culture on commodities in education systems and industries	Entrepreneurial based economy developed	Entrepreneurial based R&D and innovation curricula introduced	Number of countries implemented entrepreneurial based curricula %GDP of RDI investment	Ministries of Education Report %GDP of RDI investment	5years	To be estimated by AUC	National budget	AU STISA-2024
Develop mechanisms to link centres of excellence to the commodities industries	Enhanced efficiency in the commodities industries	Linkages between centres of excellence and the commodities industries established.	Number of linkages (CoE – industry). Value of centres of excellence commodity sector R&D.	National stats. Annual reports	3 years	To be estimated by AUC	National budget	Technology development institutions

Continental Table 25 (Pillar 4, Strategic Issue 3: Technology and Innovation)

CT 25

Pillar 4: Skills Development and R&D

Total Cost in US\$

Strategic Issue 3: Technology and Innovation

Objective 3: Provide opportunities for training and skills development in the use of modern and innovative digital applications in the commodity sector for the benefit of the African operators

STRATEGIC ACTIONS	OUTCOME	OUTPUT	OUTCOME INDICATOR	MEANS OF MEASUREMENT	TIME-FRAME	ESTIMATED COST IN US\$	FUNDING MECHANISMS	CORRESPONDING/ONGOING INITIATIVES
Promote the establishment of community-based	Improved productivity and standards at community level	Community based training institutions	Increased market share of local products.	National statistics	5 years	To be estimated by AUC	National Budget	AU STISA-2024

training institutions and e-learning platforms for SMEs and other relevant operators		and e-learning platforms established					
Promote the establishment of commodity-oriented tech-hubs and start-ups	Increased uptake and scaling up of technologies produced by start-ups.	Recognised start-ups.	Number of and extent of uptake of start-up technologies.	Ministry of Science and Technology.	5 years	To be estimated by AUC	National budget AU STISA-2024
Invest in national capabilities to harness the Fourth Industrial Revolution technologies and leapfrog development challenges in the commodities value chains	Competitive products produced efficiently	Fourth industrial based technologies available.	Use of new technologies in the production line.	National Industrial Statics	5years	To be estimated by AUC	National Budget AU STISA-2024

EX.CL/1312(XL)
Annex 3

AFRICA QUALITY POLICY

**Final version adopted by STC-TIM on 3 September
2021**

03 September 2021

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Acronyms

AfCFTA	African Continental Free Trade Area
AFRAC	African Accreditation Cooperation
AFRIMETS	Intra-Africa Metrology System
AFSEC	African Electro-technical Standardisation Commission
AIDA	Accelerated Industrial Development for Africa
AIM	2050 Africa's Integrated Maritime (AIM) Strategy
AMV	Africa Mining Vision
AQP	Africa Quality Policy
ARSO	African Organisation for Standardisation
AU	African Union
AUC	African Union Commission
AUC/ETIM	African Union Commission/Economic Development, Trade, Industry and Mining
BIAT	Boosting Intra-Africa Trade
BIPM	International Bureau of Weights and Measures
CAADP	Comprehensive Africa Agriculture Development Programme
CAB	Conformity assessment body
CAMI	Conference of AU Ministers of Industry
CIPM	International Committee for Weights and Measures (Comité International des Poids et Mesures)
CMC	Calibration and Measurement Capability
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Community
ECCAS	Economic Community of Central African States
ECOQUAL	ECOWAS Quality Policy
ECOWAS	Economic Community for West African States
EU	European Union
GRP	Good regulatory practice
IAF	International Accreditation Forum
IEC	International Electro-technical Commission
ILAC	International Laboratory Accreditation Cooperation
INetQI	International Network on Quality Infrastructure
ISO	International Organization for Standardization
ITC	International Trade Centre
ITU	International Telecommunication Union
MRA	Mutual Recognition Arrangement
MSME	Micro, Small and Medium Enterprises
NGO	Non-governmental Organization
NQI	National Quality Infrastructure
NSB	National Standards Body
NTB	Non-Tariff Barrier
NTRF	National Technical Regulatory Framework
OIML	International Organization of Legal Metrology
PAQI	Pan African Quality Infrastructure
PIDA	Programme for Infrastructure Development in Africa
PPP	Public-Private-Partnership
PTB	Physikalisch Technische Bundesanstalt
QI	Quality Infrastructure

QP	Quality Policy
REC	Regional Economic Community
RIA	Regulatory impact assessment
SADC	Southern African Development Community
SADCAS	SADC Accreditation Service
SDG	Sustainable Development Goal
SI	International System of Units
SME	Small and Medium Enterprise
SPS	Sanitary and Phytosanitary
SQA	Standardization and Quality Assurance
STC – TIM	Specialized Technical Committee for Trade, Industry and Minerals
TBT	Technical Barriers to Trade
UMA	Arab Maghreb Union
UNECA	United Nations Economic Commission for Africa
UNIDO	United Nations Industrial Development Organisation
WTO	World Trade Organization

Definitions

The following definitions apply to this Africa Quality Policy unless the context determines otherwise:

- I. **Accreditation** is a third-party attestation related to a conformity assessment body conveying formal demonstration of its competence to carry out specific conformity assessment tasks (*Source: ISO/IEC 17000:2004*);
- II. **Calibration** is the operation that, under specified conditions, in a first step, establishes a relation between the quantity values with measurement uncertainties provided by measurement standards and corresponding indications with associated measurement uncertainties and, in a second step, uses this information to establish a relation for obtaining a measurement result from an indication (*Source: JCGM³⁵ 200:2012*);
- III. **Certification** means a third-party attestation related to products, processes, systems or persons (*Source: ISO/IEC 17000:2004*);
- IV. **Conformity assessment means** the demonstration that specified requirements relating to a product, process, system, person or body are fulfilled (*Source: ISO/IEC 17000:2004*);
- V. **Conformity assessment activity** means an activity conducted by a conformity assessment body when assessing conformity (Note: Activities covered by accreditation include, but are not limited to, testing, calibration, inspection, certification of management systems, persons, products, processes and services, provision of proficiency testing, production of reference materials, validation and verification) (*Source ISO/IEC 17011:2017*);
- VI. **Conformity assessment procedure** means any procedure used, directly or indirectly, to determine that relevant requirements in technical regulations or standards are fulfilled (*Source : WTO TBT Agreement*);
- VII. **Conformity assessment body** means a body that performs conformity assessment activities and that can be the object of accreditation (*Source ISO/IEC 17011:2017*);
- VIII. **Conformity assessment system** means the rules, procedures and management for carrying out conformity assessment (*Source: ISO/IEC 17000:2004*);
- IX. **Harmonized standards** means standards on the same subject approved by different standardizing bodies, that establish interchangeability of products, processes and services, or mutual understanding of test results or information provided according to these standards;
- X. **Inspection** means the examination of a product design, product, process or installation and determination of its conformity with specific requirements or, on the basis of professional judgement, with general requirements (*Source: ISO/IEC 17000:2004*);
- XI. **Measurement standard** means the realization of the definition of a given quantity, with stated quantity value and associated measurement uncertainty, used as a reference (*Source: JCGM 200:2012*);
- XII. **Metrology** means the science of measurement and its application (*Source: JCGM 200:2012*);
- XIII. **National measurement standard** means a measurement standard recognized by national authority to serve in a state or economy as the basis for assigning quantity values to other measurement standards for the kind of quantity concerned (*Source: JCGM 200:2012*);
- XIV. **Public** in the context of the private and public sector includes independent statutory

³⁵ Joint Committee for Guides in Metrology (JCGM) publication- International vocabulary of metrology – Basic and general concepts and associated terms (VIM)

bodies;

- XV. Policy** means a guide to the action or decisions of people, aimed at helping to achieve the objectives in a consistent manner;
- XVI. Policy measures** means something that is done to implement a policy;
- XVII. Quality Infrastructure (QI)** is a system comprising the organizations (public and private) together with the policies, relevant legal and regulatory framework, and practices needed to support and enhance the quality, safety and environmental soundness of goods, services and processes. The Quality infrastructure is required for the effective operation of domestic markets, and its international recognition is important to enable access to foreign markets. It is a critical element in promoting and sustaining economic development, as well as environmental and social wellbeing. It relies on metrology, standardization, accreditation, conformity assessment, and market surveillance (*Source: Definition adopted in June 2017 by INetQI*);
- XVIII. Quality policy** means a policy adopted at a national or regional or continental level to develop and sustain an efficient and effective QI system (*Note: This definition relates to policy making at national or regional or continental levels and differs from the definition of Quality Policy as stated in ISO 9000:2015, which applies more to organizations*);
- XIX. Quality management** means the coordinated activities to direct and control an organization with regard to quality (*Source ISO 9000:2015*);
- XX. Quality** means the degree to which a set of inherent characteristics of an object fulfils requirements (*Source ISO 9000:2015*);
- XXI. (Mutual) Recognition Arrangement (MRA)** means an arrangement whereby participating bodies acknowledge to others that the conformity assessment results of the other participating bodies have been produced by competently performed, equivalent procedures (*Source: ISO/IEC Guide 68:2002*);
- XXII. Standard** means a document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context (*ISO/IEC Guide 2:2004*);
- XXIII. Technical regulation** means a document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method (*Source: WTO TBT Agreement*);
- XXIV. Testing means** the determination of one or more characteristics of an object of conformity assessment, according to a procedure (*Source: ISO/IEC 17000:2004*).

Foreword

A key challenge for Africa as a region is to move off an economic growth path built on consumption and commodity exports onto a more sustainable developmental path based on production and trade of high quality products and the promotion of environmental and social well-being. It has long been appreciated that an important ingredient for the success and sustainability of Africa's development efforts necessary for poverty alleviation and attainment of the Sustainable Development Goals (SDGs), is ensuring that the products and services produced in Africa meet requisite standards. Quality does not happen by accident but must be deliberately built into production processes and service delivery. In turn, Africa must invest in quality through developing and supporting quality institutions at national, regional and continental levels. A quality policy ensures that this is done in an organized and coordinated manner.

This document, the Africa Quality Policy (AQP) is the result of efforts by African quality professionals and stakeholders to produce a policy that will ensure that the standards and quality requirements of flagship programmes such as the African Continental Free Trade Area (AfCFTA) and Boosting Inter-Africa Trade (BIAT), Accelerated Industrial Development for Africa (AIDA), Africa Mining Vision (AMV), Comprehensive Africa Agriculture Development Programme (CAADP), Programme for Infrastructure Development in Africa (PIDA) and many others are met. The policy highlights the institutional, structural and collaboration requirements for the existence of a robust quality infrastructure in Africa that would adequately support industrial development, trade liberalization and other African socio-economic endeavours. The AQP aims at providing guidance to Member States, who retain their sovereignty in all matters of policy regarding their national quality infrastructures. The AU will use the AQP to support quality initiatives in its flagship programmes.

Development of the Africa Quality Policy was led by the African Union Commission (AUC) and the Pan African Quality Infrastructure Joint Committee (PAQI JC) Secretariat. A first draft of the policy document was circulated in June 2019 to all Member States and Regional Economic Communities (RECs) by the AUC/PAQI JC secretariat. A total of 50 AU Member States and 6 AU recognised RECs, namely COMESA, EAC, ECCAS, ECOWAS, SADC and UMA, participated in the AQP development process. Two consultative workshops were held in Nairobi, Kenya, from 22 to 23 July 2019; and in Abuja, Nigeria, from 29 to 30 July 2019 to discuss the circulated draft policy. Representatives of Member States and RECs were given the opportunity to consult with their stakeholders and submit comments for incorporation into the policy by the drafters making for a fully transparent and inclusive process. During the process over 500 comments were received and considered by the drafting team.

The draft AQP was presented to the STC-TIM and adopted on 3 September 2021. The AQP is now ready for implementation by relevant parties to ensure that African products are competitive on regional and international markets and that the necessary quality infrastructure support is available for safeguarding of the environment and the health and safety of citizens.

The AU is grateful for the support received from all national and regional experts in the development of the AQP. The AU also thanks its development cooperation partners, AFREXIMBANK and the Physikalisch Technische Bundesanstalt (PTB Germany) for their technical and financial support.

AFRICA QUALITY POLICY

1. Introduction

1.1. Africa's development agenda

The African Union has launched itself on an ambitious socio-economic development trajectory anchored on infrastructural and agricultural transformation, accelerated industrial development, open trade and deeper integration. "Agenda 2063: The Africa We Want" is Africa's strategic framework that aims to deliver on its goal for inclusive and sustainable development, supported by science, technology and innovation (STI) driving manufacturing, industrialization and value addition as well as increased agricultural productivity and production.

1.2. Industrial development and international trade

A globally competitive Africa will need to shift from dependence on the export of raw commodities to a value addition and smart exploitation of regional and global value chains.

The Accelerated Industrial Development for Africa (AIDA) programme provides a continental framework for addressing the root causes of Africa's low industrial development and sets out a vision for product-based industrialisation. Standards and compliance to quality requirements is recognised as a key priority for the acceleration of Africa's industrialization.

The 2050 Africa's Integrated Maritime (AIM) Strategy was adopted in 2012 as a tool to address Africa's maritime challenges for sustainable development and competitiveness. The Strategy aims to foster more wealth creation from Africa's oceans, seas and inland water ways by developing a thriving maritime economy and realizing the full potential of sea-based activities, including fisheries and aquaculture industries, in an environmentally sustainable manner.

The Comprehensive Africa Agriculture Development Programme (CAADP) is Africa's continental policy framework for agricultural transformation. The performance of Africa's agricultural exports however needs to be improved with regard to standards compliance and quality in general (see Box 1).

The African Continental Free Trade Area (AfCFTA), under which trade will start in July 2020, include the Trade in Goods Protocol with annexes on Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary (SPS) measures. AfCFTA State Parties will be expected to comply with the provisions of these two quality-related annexes as part of ensuring that traded goods are of acceptable quality and pose no threats to the health and safety of communities and the environment.

The United Nations Economic Commission for Africa estimates that AfCFTA has the potential both to boost intra-African trade by 52% by eliminating import duties, and to double this trade if non-tariff barriers (NTBs) are also reduced³⁶. Among the NTBs, technical barriers to trade (TBTs) are prominent, including the potential wrong use of standards, technical regulations and conformity assessment procedures. A continental quality infrastructure (QI) (see Box 2) operating effectively, can level the playing field and reduce TBTs significantly, thus helping to achieve the objectives of the AfCFTA.

Box 1

Impact of standards on trade

African exports have been rejected a number of times at European Union (EU) borders because of their non-compliance with EU product standards. Africa accounts for about 30% of the total violations of EU food standards, with about 600 cases of African shipments being refused entry into the EU at the border between 2008 and 2013. (Source: Kareem, Fatima & Brümmer, Bernhard & Martínez-Zarzoso, Inmaculada. (2018). *Entry Barriers in the European Union and Rejection of Africa's Exports: The role of Institution and Trade Procedures**.)

Compliance with standards and market requirements are prerequisites for successful market access and for improving the competitiveness of exporters in the EAC. A recent study indicated that the use of harmonized standards for producing certain products improved their competitiveness and market access by 18%. (Source: *Report on the impact assessment of the East African Harmonized Standards on the business community - East African Business Council (EABC)*)

³⁶ African Continental Free Trade Area - Questions & Answers (Compiled by the African Trade Policy Centre (ATPC) of the Economic Commission for Africa (ECA) in association with the African Union Commission)

1.3. Why is an effective continental QI needed for Africa?

Each country needs QI in order to ensure that all economic activities are carried out in the most efficient manner. QI is also a critical element in safeguarding the environment and ensuring social well-being. Defining standards for products, services, processes, systems, persons or bodies and ensuring that these conform to the defined standards, through testing, inspection or certification, is one way to achieve this goal. Where products and services are exported, the country-level QI should be recognized by all foreign trading partners. This means that the national QI must be aligned with international best practices and requirements. At the level of the Regional Economic Communities (RECs), national QI of members are thus brought up to a further level of alignment and harmonization, thus bringing more efficiency and effectiveness. Harmonization of standards, and conformity assessment procedures as well as ensuring equivalence of technical regulations are always needed within a REC despite the fact that Members' QI systems are deemed to be aligned with international requirements and therefore technically equivalent.

Similarly, there is a need for both the national QIs and REC QIs to undergo a further level of alignment at the continental level, thus bringing still more efficiency and effectiveness in support of inter-REC trade and other continental development objectives

1.4. Why is there a need for an Africa Quality Policy?

The QI relies on a combination of policy, legal, institutional and regulatory frameworks to fulfil its 7 functions effectively and efficiently. Operation of the 7 QI functions requires that there be specific policies, legal and institutional frameworks. Standardization and accreditation, for example, could operate under different legislation and under different ministries in a given country while in another country standardization activities could be a totally private undertaking. There are multiple combinations possible and that is why there is a need for a higher level policy document, namely the Quality Policy, which ensures that the QI continually operates in a coherent and effective manner while meeting international requirements constantly. It follows that wherever there is a QI operating, whether at country, REC or continental level, there is a need for a Quality Policy. The Africa Quality Policy thus embodies a vision, objectives and specific functional policies for implementing quality at national, regional (REC) and continental levels. The African Union, by agreeing to lead the implementation of the AQP, demonstrates its political will and its commitment to provide the necessary human and financial resources to achieve an effective continental QI.

Box 2

What is a quality infrastructure (QI)?

It is a system comprising the organizations (public and private) together with the policies, relevant legal and regulatory framework, and practices needed to support and enhance the quality, safety and environmental soundness of goods, services and processes.

The QI enables a country, a region or continent to set and achieve quality objectives. These objectives cover both national requirements as well as requirements imposed in regional, continental and international trade agreements. The QI provides acceptable evidence, recognized at the international level; that products, services, processes, systems, persons or bodies conform to stated requirements.

An **effective** QI results from the continual and satisfactory fulfilment of all the 7 elements listed below.

- Setting a quality policy
- Standardization
- Setting and implementing a Technical regulatory framework
- Conformity assessment
- Accreditation
- Metrology
- Quality promotion and use

The AQP also establishes a mechanism to monitor the effectiveness of the QI measures put in place as well as to undertake periodic reviews of the policies to ensure that they remain up-to-date.

2. Scope of the AQP

The AQP lays down policy directions for the operation of a continental-level QI, with the aim of aligning the AQP with the policies governing national and REC-level QIs. The alignment works in both directions, meaning that national and REC-level quality policies (QP) constitute building blocks for the continental AQP while at the same time the latter lays down directions for the former (see Box 3).

3. Balancing resources within the AQP

Since the QI supports and enhances the quality, safety and environmental soundness of goods, services and processes as well as provides acceptable evidence, recognized at the international level, that these products, services and processes conform to relevant requirements, it is a challenge to have a QI capacity that covers all goods, services and processes at the same time. Therefore, the policy focus and policy measures to consolidate and strengthen the continental QI should be based on priorities determined by the AQP Governance, i.e. the Specialized Technical Committee on Trade, Industry and Minerals.

It is recognized that RECs might have different and specific priorities needing strengthening of regional QI services. The AQP Council has the responsibility to balance resources and needs at the continent level so as to make fair and transparent decisions regarding channelling of continental resources in the area of QI.

4. Guiding principles for developing the AQP

The AQP was developed based on a set of guiding principles developed by the United Nations Industrial Development Organization (UNIDO)³⁷.

The guiding principles used in developing the AQP were the following, with a brief description of “how” each was used:

- a) **Ownership:** Member States are responsible for managing their national QI through their national QP. They also build/consolidate REC-level QPs and align their national QI. They participate in the development of the AQP and its implementation. They further undertake to align national and REC QPs to the AQP.
- b) **Inclusiveness:** Key stakeholders participate in the AQP development by discussing and commenting on the draft policy. They contribute in formulating the AQP implementation strategy and action plan through stakeholder consultation workshops. Thereafter, they participate in AQP implementation, including providing or benefitting from training, as well as helping to collect performance data in the field.

Box 3

Scope: One QI/QP for all sectors

It is understood that there can be only one QI/QP set within a country, a REC or at the level of the continent. The QI/QP is independent of sectors since it is supposed to service all sectors. A country, for instance, cannot have a QI for the food sector and another QI for the textiles sector. Testing laboratories for foods and textiles both have to comply with the International Standard ISO/IEC 17025 to operate competently. The laboratories can be accredited by the same internationally-recognized accreditation body to be recognized as competent laboratories, both nationally and internationally.

³⁷ https://www.unido.org/sites/default/files/files/2018-06/QP_GUIDING_PRINCIPLES_07062018_online.pdf

- c) **Coherence:** Need of policies to harmonize standards and conformity assessment procedures as well as for ensuring equivalence of technical regulations. It also involves appropriate integration and alignment with other national, REC, continental and international policies that are intended to address quality-related needs.
- d) **Optimization:** Need to identify priority sectors, goods and services for which capacity should be built/consolidated/strengthened within the continental QI. Market surveillance responsibilities stay with Member States but continental level rapid alert system to notify Member States of sub-standard goods landing on the shores of Africa may be more effective.
- e) **Sustainability:** Need to promote membership and participation of MSs in AU-recognized Pan-African Quality Infrastructure (PAQI) institutions.

Box 4

The AQP can be very efficient in addressing continental level quality problems

With regard to EU rejection of food and feed exports by Africa, by far, the most significant reason given was violation of mycotoxin limits, accounting for as much as 22.43% of rejections from Africa's food exports between 2008 and 2013. (Source: Kareem, Fatima & Brümmer, Bernhard & Martínez-Zarzoso, Inmaculada. (2018). *Entry Barriers in the European Union and Rejection of Africa's Exports: The role of Institution and Trade Procedures**).

If the AQP were to address this problem, the question of investment in reference laboratories, post-harvest storage conditions, use of field testing/screening kits, etc., would cover 4 REC jurisdictions. This is an illustration where a continental quality policy can bring an added value in addressing an acute African problem, inter alia, by determining resource allocation modalities.

5. Policy options

Africa has set continental level policies and initiatives for enhancing industrial development, increasing intra-African trade, developing agriculture and exports of food products, enhancing wealth creation from sustainable governance of Africa's inland waters, oceans and seas, etc. Furthermore, an effective QI has been identified as a critical element for achieving these goals. In 2017, the PAQI conducted a stocktaking³⁸ of the status of QI in Africa which represented an important source of data that could effectively contribute to the formulation of African policy on trade and industrialization as well as directing QI technical assistance and capacity building programmes on the continent. The stocktaking exercise shows that in 2017, only 3 African countries had a well-developed QI while 8 had reasonably developed QIs. Twenty-four (24) countries had little or limited QIs. All the rest were in the middle somewhere.

In view of the results of the stocktaking, the following policy options were available to the AU:

- I. Option zero: No intervention by the AU, but rather leaving it up to the RECs to develop QI within their Member States under the umbrella of any regional QI that existed.
- II. Option 1: Limited intervention by the AU amounting to setting up a coordination entity at the continental level to encourage REC representatives to work together towards harmonizing REC-level QIs.
- III. Option 2: Direct intervention by the AU to spearhead QI initiatives at the continental level by formulating an Africa Quality Policy that would lay down policy directions aimed at

³⁸ PAQI stocktaking document 2017 (http://www.paqi.org/wp-content/uploads/2014/09/PAQI_Stock_Taking_2017-english.pdf)

integrating national QIs, REC-level QIs and the Pan-African QI so that the whole set-up could work effectively as a system.

Options zero and 1 would not have delivered the results expected as they lack the regional drivers such as the regional PAQI institutions which have the necessary oversight to uplift QI components in their respective fields leading to better alignment, not only at the continental level but also with international requirements and best practices.

Option 2 allows the AU to take the driving seat and formulate policies and policy measures that could indeed bring a consolidation and strengthening of a continental QI, building upon national QIs and REC-level QIs. The AU also has the necessary political leverage to mobilize resources needed to move towards this goal. Member States and RECs may have different priorities and therefore the AU through the policies taken under the AQP can assure that continental efforts are made on a transparent basis. Besides, as the continental AQP builds on REC-level QPs, such as ECOQUAL which is the quality policy of the ECOWAS, all continental initiatives and support necessarily take into account regional priorities as relevant. A case in point to illustrate this situation is described in Box 4. In implementing the AQP, the AU can also count on the regional PAQI institutions to undertake capacity building efforts and bring a certain level of harmonization of practices in their respective QI fields.

6. African quality vision

All Africa's goods and services comply with relevant standards and technical regulations and are competitive on regional and international markets.

7. Overall objective

To contribute to poverty reduction and economic prosperity by realizing an effective African Quality Infrastructure (QI) capable of raising the quality of goods and services, thus increasing Africa's export-led growth and leading to industrial expansion and diversification in line with the African Agenda 2063, the AfCFTA and boosting Intra-African trade (BIAT).

8. Specific objectives

- 8.1 To assist Africa's enterprises in becoming globally more competitive, including better integration into regional and international value chains, through enhanced trade facilitation and sustainable industrialization.
- 8.2 To assure that the continental QI is aligned to and compliant with international best practices, regional requirements and international agreements to which AU Member States are party.
- 8.3 To assure that the technical regulatory framework complies with the requirements of the AfCFTA and the WTO TBT Agreement through the application of good regulatory practices.
- 8.4 To provide for arrangements for the mutual acceptance of conformity assessment procedures among Member States in the areas of inspection, certification, testing and calibration.

- 8.5 To promote trading of compliant products on the African market by ensuring that goods comply with agreed national, regional and international standards.
- 8.6 To support the use of standards for sustainable development in all spheres of socio-economic activity, especially the MSMEs, aimed at achieving an efficient economy within Member States, better social, environmental and consumer protection, and an enhanced quality of life for citizens.
- 8.7 To promote the involvement and support of the private sector, non-governmental organizations and other civil society organizations in formulating and implementing the AQP as well as fulfilling certain functions of the QI, for example, providing conformity assessment or consultancy services.
- 8.8 To support the establishment of African centres of excellence so as to promote research and innovation and support the QI in the areas of conformity assessment.

9. Policy focus and policy measures for QI elements

This section lists the policy focuses and the policy measures that the AU advocates for each of the 7 QI elements indicated in Box 2. It should be noted that there are various policy types - such as broad or strategic policy which enunciate general direction; more specific policy which may be developed for a particular sector (e.g. standardization) or issue (e.g. exports); or operational policy which may guide decisions on programs and project selection. A "policy measure" is something that is done concretely to implement a policy.

Particular care has been taken to align this AQP with REC level policies, whether they exist as formal quality policies, such as the ECOWAS Quality Policy (ECOQUAL), or whether they are implied in REC legislation, such as the East African Community Standardization, Quality Assurance, Metrology and Testing Act, or whether they are contained in other REC decisions/procedures, such as "Technical Barriers to Trade (TBT) Annex to the SADC Protocol on Trade" or the "Principles and procedures for the development and adoption of Tripartite standards".

Finally, the policy focuses and policy measures also stem from comments/observations provided by Member States while developing the policy document.

Setting and implementing the Africa Quality Policy

1.5.1. Policy context

The AQP is the basic AU instrument to modernize/consolidate the continental QI. It lays down policy directions for the various functions of the QI and indicates how they are fulfilled at country, REC and continental levels in order to have an effective QI to serve African as well as international needs. While the AU does not have the legal basis to enforce measures at country or REC levels, it does have the political mandate and authority to lead the continent along a path that brings sustainable development. Thus, this function of setting and implementing the AQP should be understood as the AU providing the thrust and leadership in QP and QI matters at continental level and its reliance on Member States and RECs to achieve the objectives of the AQP. This leadership role of the AU also means that it has to establish the necessary mechanism for

overseeing the implementation of the AQP, to monitor its effectiveness and take corrective actions when needed.

The first step after approval of the AQP is to prepare and implement an action plan, including bringing awareness on the need for its thorough execution, principally among policy makers at Member State and REC levels who will have to bring more efficiency on the way QI institutions work to eliminate overlapping and incompatible functions, and hence move towards more effectiveness and efficiency.

Implementation of this quality policy will be driven with the support of continental institutions responsible for standardization, metrology and accreditation on the continent (see Box 5).

These institutions are:

- The African Organisation for Standardisation (ARSO);
- The African Electrotechnical Standardisation Commission (AFSEC);
- The Intra-Africa Metrology System (AFRIMETS);
- The African Accreditation Cooperation (AFRAC).

1.5.2. Policy focus

The AU will:

- consult Member States and RECs, and through them the relevant stakeholders, on the content and orientation of the AQP during its formulation, its implementation and its periodic review;
- strengthen regional PAQI institutions (ARSO, AFRAC, AFRIMETS, AFSEC) and support their operational linkages with relevant international organizations to ensure that the continental QI is recognized internationally (see Box 5 on CAMI resolution 2014);
- strengthen regional services (e.g. reference testing and/or calibration laboratories, regional certification or inspection schemes, proficiency testing providers, etc.);
- encourage and support the private sector to invest in conformity assessment services, such as testing, calibration, inspection and certification to ensure that the combined efforts of the public sector and the private sector continually satisfy the needs of the continent;
- exercise oversight on continental QI functions to ensure their continual effectiveness, relevance and efficiency ;
- encourage and support Member States and RECs to ensure that their QI institutions closely cooperate with and participate in the work of relevant continental and international organizations (e.g. ARSO, AFRAC, AFRIMETS, AFSEC, ISO, IEC, OIML, IAF, ILAC, CIPM, BIPM, etc.);
- monitor the African business environment with a view to its responsiveness to changing international requirements related to QI matters and take pre-emptive measures, in collaboration with Member States and RECs, to assure continued compliance.

1.5.3. Policy measures

After the adoption of the AQP by the AU, the AUC will develop an Action Plan for its implementation including, among others, the measures related to the following:

Box 5

CAMI Resolution

At their meeting held on 10 – 14 June 2013 in Nairobi, Kenya, the Conference of AU Ministers of Industry (CAMI) made the following decision with respect to quality, standards and metrology:

“Recognize the Pan African Quality Infrastructure (PAQI) as the continental platform for all matters related to standardization, metrology, accreditation and conformity assessment in order to strengthen the competitiveness of Africa’s goods and services and contribute towards the industrialization of the continent and its

- seeking external funding opportunities to strengthen the RECs' QI functions and PAQI institutions taking care not to duplicate resources;
- requesting MSs to appoint one or more technical personnel within their key ministry responsible for QI matters to coordinate national activities with regard to the implementation of the AQP;
- strengthening human resource capacity in standardization, technical regulations, conformity assessment, accreditation and metrology;
- designating and empowering an entity within the AUC to supervise, on behalf of the AU and in collaboration with Member States, RECs, PAQI institutions and stakeholders, the implementation of the AQP and monitoring of associated performance indicators;
- establishing clear targets and timelines for implementing the AQP;
- continually assessing the evolving continental needs in each of the 7 QI elements, identifying areas where there are gaps and implementing additional policy measures to bridge the gaps.

1.6. Standardization

1.6.1. Policy context

The standardization activity consists of the processes of formulating, issuing and implementing standards. Standards are developed by national standards bodies (NSBs), regional standards organizations (e.g. ARSO or AFSEC) or international standards organizations (e.g. ISO or IEC). NSBs may become members of regional and/or international standards organizations and actively participate in the development of regional or international standards which they can then adopt as national standards. The WTO/TBT Agreement, in its Annex 3, makes it an obligation for countries to have their NSBs accept and comply with the Code of Good Practice for the Preparation, Adoption and application of Standards. In the context of intra-African trade, national standards, regional standards (developed by RECs) and ARSO/AFSEC regional standards need to be harmonized and aligned whenever appropriate with relevant international standards so as not to create unnecessary technical barriers to trade.

1.6.2. Policy focus

The AU will:

- encourage Member States to establish national standards bodies;
- ensure that standards harmonization work at the level of ARSO and AFSEC is always carried out based on priority needs;
- strengthen the active participation of Member States' national standards bodies in the development of regional and international standards particularly in those sectors that are crucial for intra-African and international trade;
- encourage Member States and RECs to ensure that their standardizing bodies accept and follow the Code of Good Practice for the Preparation, Adoption and Application of Standards as provided in Annex 3 of WTO Agreement on Technical Barriers to Trade;
- support ARSO and AFSEC with the means to ensure that they comply with the Code of Good Practice for the Preparation, Adoption and Application of Standards as provided in Annex 3 of WTO Agreement on Technical Barriers to Trade as well as follow the 6 principles³⁹ of transparency, openness, impartiality and consensus, relevance and

³⁹ DECISION OF THE WTO TBT COMMITTEE ON PRINCIPLES FOR THE DEVELOPMENT OF INTERNATIONAL STANDARDS, GUIDES AND RECOMMENDATIONS WITH RELATION TO ARTICLES 2, 5 AND ANNEX 3 OF THE WTO TBT AGREEMENT

effectiveness, coherence and consideration of developing country interests when developing Harmonized African Standards requested by the AUC;

- support ARSO and AFSEC to maintain the relevant level of membership or liaison in international standards organizations such as ISO and IEC respectively, and as far as possible participate in the international standards development work of these organizations, either directly or through Member States' NSBs;
- promote the linkages between research and innovation with African standardisation work.

1.6.3. Policy measures

After the adoption of the AQP by the AU, the AUC will:

- assess the needs for harmonized African standards, establish priorities and request ARSO and AFSEC as needed to prepare such African standards within given deadlines;
- ensure compliance with the Code of Good Practice for the Preparation, Adoption and Application of Standards according to Annex 3 of the WTO/TBT Agreement in all standardization work undertaken under this Policy;
- establish and implement a plan for capacity-building of ARSO/AFSEC staff and technical committee members on good standardization practices;
- establish and implement a methodology for prioritizing standards development, through wide consultation among stakeholders, academia and research organizations as well as technical experts;
- ensure that standards will be developed only if they have a market relevance and are suitable as a technical solution;
- ensure that ARSO and AFSEC liaise with the AfCFTA Sub-committee on Technical Barriers to Trade to facilitate AfCFTA standards harmonisation needs in terms of the AfCFTA Agreement's Protocol on Trade in Goods Annex 6 on Technical Barriers to Trade;
- ensure that the programme of work relating to standards under development is published at least once every six months in accordance with the requirements of the WTO TBT Agreement;
- conduct awareness seminars to disseminate information about the benefit of standards to various target groups, including both the public and the private sector.

1.7. Setting and implementing a Technical Regulatory Framework

1.7.1. Policy context

Technical regulations, because of their mandatory nature, have the potential to become technical barriers to trade (TBT) which are barriers other than those of a financial nature that prevent or hinder the flow of goods and services between nations. Standards are voluntary but when referenced in technical regulations, they become mandatory.

The main barrier in the area concerning QI is the inappropriate use of technical regulations, standards and conformity assessment procedures. The AfCFTA Agreement, through Annex 6 on Technical Barriers to Trade, advocates for the use of International Standards or parts thereof as the basis of technical regulations so as not to create unnecessary obstacles to international trade. An analysis of the WTO TBT Committee's records however shows that about one third of all specific trade concerns (STCs) raised in the WTO TBT Committee are associated in one way or

another with the subject of international standards⁴⁰. One major problem that is of great concern to developing countries, for instance, is that different regulatory agencies within the same country do not reference standards in their technical regulations in a coherent manner.

Additionally, an analysis of the World Bank's worldwide governance indicators⁴¹ in 2017, with regard to regulatory quality, show that only 4 of the 54 African countries for which these indicators have been compiled show an index slightly above zero on a scale ranging from -2.5 and +2.5, with higher values corresponding to better governance. This means that African countries have a deficit in using regulation effectively. To avoid this, the WTO TBT Committee encourages member countries to use Good regulatory practice (GRP), which describes best practices and procedures developed by governments and organizations to improve the quality of regulation, including technical regulations.

Technical regulations are the responsibilities of governments and, within the African context, also of some RECs, e.g. the EAC can declare compulsory standards akin to declaring technical regulations. There is thus a need at the country and REC levels to have a technical regulatory framework that each regulator can abide by, including the use of GRP and regulatory impact assessment (RIA).

1.7.2. Policy focus

The AU will

- request Member States to establish a national technical regulatory framework (NTRF) with a view to applying a set of mechanisms and related principles of GRP recommended by the WTO TBT Committee;
- encourage RECs to align NTRFs with any REC-level technical regulatory framework with a view to assuring regulatory coherence and regulatory harmonization aimed at minimizing TBTs; close collaboration will be maintained in this process with the AfCFTA Sub-Committees on NTBs and TBTs established under the AfCFTA Annexes 5 and 6 respectively; as well as with REC NTB Coordination Units;
- encourage Member States and RECs to use international standards and ARSO African Harmonized Standards as relevant as basis for technical regulations;
- encourage Member States and RECs to be linked and to share information and data on counterfeit and sub-standard goods in their markets;
- establish a continental early warning system to enhance the effectiveness of market surveillance systems operating at Member State or REC levels with a view to alerting all African countries when imports of sub-standard or dangerous goods on African soil are encountered.

1.7.3. Policy measures

After the adoption of the AQP by AU, the AUC will

- set up a committee composed of REC representatives, PAQI institutions and the African Union Commission – Economic Development, Trade, Industry and Mining (AUC ETIM) to develop guidance on setting up a national technical regulatory framework (NTRF) at the level of Member States; the Committee should ensure that the NTRF is based on features of high-quality regulation such as effectiveness and efficiency; transparency and accountability; proportionality and consistency;

⁴⁰ Wijkström, Erik and McDaniels, Devin, International Standards and the WTO TBT Agreement: Improving Governance for Regulatory Alignment (March 19, 2013).

⁴¹ <https://info.worldbank.org/governance/wgi/#doc>

- work with RECs to organize awareness and training programmes for national regulators on the NTRF guidance document to help them understand and apply GRP, RIA and other tools/principles;
- develop guidance on referencing international standards or African Harmonized Standards in technical regulations with a view to train regulators on referencing only the essential requirements of a standard necessary to meet the desired objectives of the technical regulation;
- facilitate the sharing of information, through the AU Trade Observatory, on findings of national market surveillance authorities on dangerous goods.

1.8. Conformity assessment

1.8.1. Policy context

Conformity assessment is the demonstration that specified requirements relating to a product, process, system, person or body are fulfilled – these requirements may be included in a standard or a technical regulation. Conformity assessment activities are carried out by conformity assessment bodies (CAB), i.e. testing and calibration laboratories, proficiency testing providers (PTP), reference material producers, inspection bodies and certification bodies. Conformity assessment procedures have to comply with WTO TBT requirements so that conformity assessment results from one country may be accepted by another country, provided there is evidence of competence of the CAB, for example through accreditation. All accredited CABs in the world operate to the same level of competence, thus facilitating mutual recognition of conformity assessment results among them. Thus, testing and calibration laboratories worldwide have to comply with the international standard ISO/IEC 17025. In the African context, 7 Member States have internationally-recognized accreditation bodies that can accredit calibration and testing laboratories. Another 14 SADC Member States have access to internationally-recognized testing and calibration accreditation services through SADC Accreditation Service (SADCAS), a multi-economy accreditation body. This means that 35 Member States have no access to national accreditation services to enable testing and calibration laboratories in these countries to be accredited to demonstrate their competence in testing intra-African traded goods. Mutual recognition of test reports is thus huge challenge among countries, necessarily negatively impacting intra-African trade.

In addition to conformity assessment procedures themselves, one also has to consider the wider picture of conformity assessment systems, which include the rules, procedures and management for carrying out conformity assessment. Although, conformity assessment procedures might be similar among countries, for example when based on international test methods, conformity assessment systems might be different, for example when high-risks goods are tested or when market surveillance requirements are governed by strict liability laws and penalties to ensure that products comply with requirements.

Yet, another important area of conformity assessment poses a problem in Africa – the lack of means and arrangements for conformity assessment of electro-technical products. This is particularly pertinent in these times when the fourth industrial (technology) revolution is well underway.

1.8.2. Policy focus

The AU will

- encourage Member States and RECs to ensure that they use conformity assessment procedures that comply with WTO/TBT requirements, in particular the use of relevant guides or recommendations issued by international standardizing bodies as a basis for conformity assessment procedures;
- encourage Member States and RECs to accept, as far as possible, only accredited conformity assessment results to demonstrate compliance with standards and technical regulations in order to minimize risks; where this is not possible, results from CABs participating in recognized inter-comparisons and proficiency testing schemes may be temporarily accepted;
- encourage Member States and RECs to accept all accredited conformity assessment results or to support voluntary mutual recognition arrangements (MRAs) between conformity assessment bodies;
- encourage Member States and RECs to support regional optimization of conformity assessment services, for example by strengthening existing strong laboratories to build critical incremental capacity in testing and act as regional reference laboratories;
- welcome and support initiatives by CABs to regroup as professional associations or a forum to reflect on the state of CA in Africa and to advise the AU on policies to strengthen this sector;
- promote and support the establishment of centres of excellence that can be used as reference points for testing and calibration to support industrial development and trade;
- support programmes at the level of Member States and RECs to address the special needs of MSMEs for conformity assessment services, e.g. for handicraft products;
- encourage Member States and RECs to create the necessary business environment to enlist the support of the private sector in providing conformity assessment services, if necessary through public-private-partnerships.

1.8.3. Policy measures

After the adoption of the AQP by the AU, the AUC will

- undertake a survey of CABs in Africa, with the help of Member States and RECs, with a view to constitute a continental database for use by producers, traders, regulators etc. to quickly identify appropriate CABs for their needs; regular updating of the database can also be used to measure progress in the expansion of CA services on the continent;
- prepare a framework agreement on Mutual Recognition Arrangements(MRAs) under which Member States and RECs can establish MRAs;
- assess conformity assessment capabilities both in the public sector as well as in the private sector for continental priority sectors in view of addressing any gaps in needed capabilities by strengthening CA service providers through PAQI institutions and RECs as relevant;
- create the condition under which test laboratories in Member States will have access to regular proficiency testing;
- undertake to assess whether CABs operating in the priority sectors for Africa have access to accreditation services to cover their scopes of conformity assessment and if needed the capabilities of relevant national or multi-economy African accreditation bodies will be extended to cover the needs of CABs;
- enlist the support of ARSO Conformity Assessment Committee (CACO) to identify the need for and develop guidance documents on conformity assessment in the African

context, including an African quality mark.

1.9. Accreditation

1.9.1. Policy context

Accreditation is a third-party attestation formally recognizing the technical competence of conformity assessment bodies (CABs), e.g. laboratories, proficiency testing providers (PTP), inspection and certification bodies, to carry out conformity assessment activities so that certificates issued by these bodies are recognized as being reliable and trustworthy, both at national as well as international levels. In Africa, accreditation services are provided by accreditation bodies (ABs) which are either national or multi-economy accreditation bodies. ABs are recognized internationally after they successfully pass a peer-review process and become signatory to the mutual recognition arrangement of the International Laboratory Accreditation Cooperation (ILAC MRA) and/or the multilateral recognition arrangement of the International Accreditation Forum (IAF MLA). If the AB accredits laboratories, PTPs and inspection bodies, it should adhere to the ILAC MRA and if it accredits bodies certifying quality management systems, products, services, persons and environmental management systems, it should adhere to the IAF MLA.

Becoming signatories to the ILAC/MRA and IAF/MLA for African ABs is facilitated by AFRAC, which is the PAQI institution for accreditation, and is recognized as a Regional accreditation group by IAF and a Recognised Regional Cooperation Body by ILAC. This means that African ABs just need to become signatories to the AFRAC MRA in order to become ILAC/MRA and IAF/MLA signatories.

In the African context, 7 Member States are signatories to the ILAC/MRA while 5 among these are also signatories to the IAF/MLA. SADCAS, a multi-economy accreditation body, servicing 14 SADC Member States is signatory to the ILAC/MRA but not yet to the IAF/MLA. It is also acknowledged that several other national ABs and a multi-economy AB in West Africa are working towards international recognition. There is nevertheless an acute need to address this deficit at the continental level.

1.9.2. Policy focus

The AU will:

- encourage Member States and RECs to arrange for the provision of accreditation services to their CABs. This can be done either through the creation of ABs at the national level, or through regional or multi-economy ABs;
- strengthen AFRAC to extend its MRA scopes to cover other African needs, e.g. in proficiency testing.
- support regional and multi-economy ABs in Africa to achieve international recognition as soon as possible by becoming signatory members of AFRAC ;
- encourage Member States to preferably use the services of national or multi-economy internationally recognized accreditation bodies from Africa;
- request Member States to recognize and accept results of conformity assessment from CABs accredited by any national or multi-economy internationally recognized accreditation bodies.

1.9.3. Policy measures

After the adoption of the AQP by the AU, the AUC will:

- undertake a survey of accreditation needs in Africa in priority sectors with the help of AFRAC;
- mobilize resources to strengthen national or multi-economy accreditation bodies from Africa in light of needs identified above, for example to extend their scopes of accreditation when these are needed by African producers in priority areas for the continent;
- support Member States and RECs to disseminate awareness and information on accreditation and conformity assessment to various target groups;
- support RECs to establish and implement plans for capacity-building to constitute/expand regional pool of technical assessors, auditors and experts for use by national and multi-economy ABs when providing accreditation services across Africa.
- ensure that AFRAC liaises with the AfCFTA Sub-committee on Technical Barriers to Trade to facilitate AfCFTA accreditation needs in terms of the AfCFTA Agreement's Protocol on Trade in Goods Annex 6 on Technical Barriers to Trade.

1.10. Metrology

1.10.1. Policy context

Metrology is the science of measurement and it has become a natural and vital part of our everyday life, e.g. food is bought by weight, water or electricity are metered, instruments analysing blood samples must be precise, etc.

Metrology is divided into three subfields, namely

- scientific or fundamental metrology (concerns the establishment of measurement units, realization of measurement standards and the transfer of traceability from these standards to users in society),
- applied or industrial metrology (concerns the application of measurement science to manufacturing and other processes and their use in society) and
- legal metrology (concerns regulatory requirements of measurements and measuring instruments for the protection of health, public safety, the environment, protection of consumers and fair trade).

Metrology is critical for the operation of the QI. Balances and other instruments in laboratories need to be calibrated so that they can provide reliable measurements, otherwise test reports have no value. Firms cannot satisfactorily implement process controls to manufacture a product to specified standards if control instruments such those measuring pressure and temperature are not properly calibrated. Confidence in national measurement is assured by a national metrology institute (NMI) when it becomes signatory to the Mutual Recognition Arrangement of the International Committee of Weights and Measures (CIPM MRA). The CIPM MRA provides the institutional and technical framework for NMIs to recognize each other's measurement standards and calibration certificates.

Legal metrology falls within the regulatory sector and most countries have passed laws to ensure that proper measurement in this area is covered. This entails two areas of responsibility:

- a) defining the legal units (weights and measures) and the levels of accuracy in measurements, and
- b) enforcement which includes type approval, initial, and subsequent verification.

In the African context, the major mandates of the Intra-Africa Metrology System (AFRIMETS) are

- 1) to promote harmonisation of scientific, industrial and legal metrology issues across Africa and to operate as a fully-fledged Regional Metrology Organisation (RMO) for Africa, in accordance with the Mutual Recognition Arrangement of the International Committee for Weights and Measures, the CIPM MRA; and
- 2) to facilitate, through use of accurate measurements, international and intra-Africa trade as well as ensuring the safety and health of consumers and environmental protection.

1.10.2. Policy focus

The AU will:

- encourage Member States to use only the International System of Units (SI) of measurements at the national level; other local or traditional units of measurements should be phased out gradually;
- encourage Member States to establish/strengthen national metrology institutes (NMI) with the responsibility of acquiring and conserving national measurement standards capable of providing accurate and reliable measurements in the country;
- encourage Member States and RECs to ensure harmonization of type approval and verification procedures of measuring instruments at REC level first, then at continental level;
- encourage Member States to ensure protection of consumers by controlling pre-packaging of goods on the market, all of which should be based on relevant international or regional standards such as the Recommendations of the International Organization of Legal Metrology (OIML);
- encourage Member States to recognize the equivalence between any public or private calibration laboratories, including those of NMIs, to provide calibration services provided that they are accredited; private sector operators should be encouraged to offer calibration services;
- encourage Member States to ensure that all national measurement standards in the custody of their NMIs are traceable to the International System of Units (SI).

1.10.3. Policy measures

After the adoption of the AQP by the AU, the AUC will:

- undertake a survey of metrology capabilities in Africa with the support of AFRIMETS to identify gaps in priority areas for Africa and draw necessary plans to address these gaps;
- establish a plan in collaboration with Member States and RECs to support AFRIMETS to implement its mandates as described above;
- identify, as a matter of priority in consultation with Member States and RECs, operational hurdles preventing NMIs from guarantying traceability requirements;
- consider regional optimization measures to enable Member States with limited resources to obtain international traceability from other African countries;

- establish a priority plan to support accreditation of NMIs so that they can disseminate traceability to calibration laboratories within Member States;
- ensure that AFRIMETS liaises with the AfCFTA Sub-committee on Technical Barriers to Trade to facilitate AfCFTA metrology needs in terms of the AfCFTA Agreement's Protocol on Trade in Goods Annex 6 on Technical Barriers to Trade.

1.11. Quality promotion and use

1.11.1. Policy context

What are the drivers that bring producers, service companies, etc. to apply standards and feel the need to demonstrate conformity? When standards are made mandatory under technical regulations, the inducement is clear but what about the voluntary sector? The answer is that it could be a mix of the following: increased awareness about the benefits of applying standards in operations, strong demands for conforming products by well-organized and strong consumer associations, procurement conditions in Government purchase contracts, requirements of overseas buyers, need to demonstrate a leadership position and improve corporate image, etc.

All the above factors pushing towards better use of standards may well exist in a given country but it is not enough. Technical expertise should be available easily, e.g. in the form of a pool of national experts, to help enterprises apply standards and even prepare them for certification. Building capacity at the local level is key as lack of expertise can become a major constraint in the QI. It is useless to build CAB capability and build/reinforce institutions under the various other functions of the QI if users of the services are unable to progress because of lack of expertise.

1.11.2. Policy focus

The AU will:

- encourage Member States to promote awareness campaigns and training with the view to raise knowledge and awareness of quality in society, including by establishing programmes for education in standardisation and other elements of QI ;
- support PAQI institutions to create and conduct capacity building programmes in their respective fields of expertise, including preparation and publication of technical brochures, manuals, etc.;
- encourage Member States to promote application of quality tools to improve products and services through training of industry personnel, with special regard to MSMEs and integration into the international and regional value chains;
- encourage Member States to support consumers and consumer organizations to disseminate knowledge and information about standards and quality;
- encourage Member States to create national pools of experts in quality management to support producers and services to apply quality management systems;
- encourage Member States and RECs to create national institutes of quality and national/sub regional quality awards to promote the quality culture;
- establish an Africa Quality Award Scheme (AQAS) with the specific aim of promoting quality in the MSME sector;
- encourage Member States and RECs to closely involve the private sector in all initiatives related to quality promotion.

1.11.3. Policy measures

After the adoption of the AQP by the AU, the AUC will

- draw up an action plan for implementing the above policies in close collaboration with the PAQI institutions and RECs;
- design and disseminate a communication plan to inform all stakeholders on progress with implementation of the AQP.

10. Financing of the AQP

Implementation of this policy will be financed through a variety of funding streams. The AUC will also explore the possibility of setting-up a fund to ensure that resources are guaranteed for implementation of the AQP. The source of funds have to be determined through wide consultation among PAQI institutions, Member States, RECs and the AUC.

2.1. AUC Budget allocations

The AUC will fund the following:

- Administration costs related to the implementation of the AQP, including costs of running the secretariat;
- Activities related to interventions where quality gaps have been identified in value chains earmarked for industrial development at continental level;
- Participation of African representatives, i.e. from ARSO, AFSEC, AFRIMETS and AFRAC to annual meetings of ISO, IEC, BIPM/CIPM/CGPM and ILAC/IAF respectively;
- Participation of AUC and AfCFTA QI experts to WTO TBT & SPS Committee meetings;
- Participation of QI representatives at meetings of the AfCFTA Technical Committees on TBT, SPS and NTB as necessary;
- Standards development and/or harmonisation technical committee meetings;
- Proficiency testing schemes in selected areas;
- Technical capacity building activities such as training workshops and attachments for QI staff within the Member States and awareness building activities; and
- Support of an Africa wide annual Quality Award Scheme.

2.2. Contribution by Member States

Member States are responsible for financing national measures and activities that are necessary to fulfil the objectives of this AQP including the following:

- Development and consolidation of national QPs where relevant;
- Upgrading or consolidating the national QI institutions;
- Training and capacity-building for QI institutions, consumer organizations, civil society organizations and other stakeholder groups; and
- Membership fees, as relevant, to appropriate regional, continental and international bodies.

2.3. PAQI Structures membership fees

The fees that PAQI institutions collect from their members will fund the following:

- The costs of running their structure secretariats;

- The costs associated with hosting each structure's annual general meeting (AGM) and any extra-ordinary AGMs;
- Their Membership fees to international bodies as necessary; and
- Participation at meetings and events other than those mentioned in 10.1.

2.4. Technical partners' contributions

These contributions will be used to support the following:

- Training of technical experts in the QI area;
- Training of industry personnel in the implementation of standards and use of quality tools in industry operations;
- Selected priority standards harmonisation technical committees meetings;
- Capital acquisitions to support regional Centres of Excellence, including reference laboratories; and
- Supplementary support for proficiency testing schemes as requested.

2.5. Private sector contributions

These contributions may be used to fund the costs of selected standards development/harmonisation technical committees.

11. Implementation arrangements

It has to be highlighted that the AQP is a collective policy of the Member States and that it can only be successfully implemented if Member States are fully committed after having approved this policy. Member States should also consider implementing the policy and related measures at the level of and through the RECs of which they are members. Member States' and RECs' commitment are critical since the AUC, in accordance with the mandate given to it by the AU and which will oversee the implementation of the AQP, has only limited regulatory powers. There should also be a clear governance structure to support the AUC during the implementation process.

3.1. Governance

The Governance of the AQP implementation is vested with the Specialized Technical Committee on Trade, Industry and Minerals (STC-TIM). The latter may delegate some of its tasks to an AQP Council constituted as follows:

- Chair, the AUC Commissioner for Economic Development, Trade, Industry and Mining
- AfCFTA Secretariat
- PAQI institutions
- REC representatives
- Stakeholder representatives (private sector, consumers, academia).

The Governance has the following functions:

- a) monitor and oversee implementation plans on a regular basis till successful implementation;
- b) commission studies, request information from concerned institutions and conduct

research to obtain information and data

- c) adopt plans for the modernization of the continental QI and assign implementation to specific PAQI institutions or RECs;
- d) review the current status of the continental level QI and make recommendations on improvements;
- e) progress the decisions and recommendations made to the highest level of the AU and AfCFTA secretariat for modernizing the continental QI.

3.2. High level implementation plan

In strengthening the continental QI as envisaged in this AQP, an integrated approach is required to ensure that there are no gaps, overlaps, duplication or conflicts of interest between the various PAQI institutions, Member States and RECs. The approach will consider the level of development/maturity of the national Qis before targeting support and channelling resources, in order to ensure that those MS most in need of support derive the necessary benefits.

The Governance will develop an Action Plan within 6 months of the approval of the AQP to guide all relevant parties in implementing this AQP. The implementation plan will be submitted for consultation to Member States and RECs.

3.3. Timeline

The AU is committed to implement the provisions of this AQP within a period of five years from the date of its approval.

12. Performance measurement arrangements and indicators

4.1. Scope of performance indicators

Indicators are metrics put in place to measure progress resulting from implementation of the AQP. Many factors such as inadequate financial and human resources or lack of coordination across all players involved in the implementation can hinder the proper implementation of the AQP. Thus, indicators provide objective information that can be used as basis for timely corrective actions if targeted objectives are not being met.

Indicators need to be SMART, the acronym meaning that they need to be specific, measurable, achievable at a reasonable cost, relevant, and time-bound. For the purpose of measuring performance, only the indicators relative to the proper implementation of the AQP will be covered, NOT the indicators relative to each of the elements of the QI. In other words, the indicators will not measure, for example, whether the function of accreditation or standardization is being fulfilled effectively at the continental level. They will only measure whether the policies, deadlines and targets set in the implementation plan, including in these QI these areas, are being carried out.

Performance indicators can be used during and after AQP implementation. In the former case, it monitors progress while for the latter, it helps in the review of the policy and for framing of new policies. Data collection relative to each indicator is of utmost importance for measuring progress in AQP implementation. The indicators used should not rely on complex and costly data collection methods, which might make the exercise unfeasible.

4.2. Setting targets for indicators

Once indicators are identified, target values for the indicators should be defined with the assumption that if the target is reached, then the performance is deemed satisfactory. The AQP Governance or the AQP Council (by delegation) will set the targets for each of the indicators identified below.

4.3. Types of indicators

With respect to the AQP, the following two types of performance indicators are relevant:

- Policy implementation indicators;
- Policy effect indicators.

4.4. Policy implementation indicators

The policy implementation indicators show how well the AQP is being implemented and is further broken down into input indicators and activity indicators.

Input indicators monitor the resources that are devoted to implementation of the policy while activity indicators monitor the activities that are carried out when implementing the AQP.

The following input indicator is proposed:

- Number of persons in Member States and RECs officially designated with the responsibility, in addition to their normal responsibilities, of coordinating the implementation of the AQP.

The following activity indicators are proposed:

- Number of meetings in a year of the AQP Council;
- Number of deadlines met as laid down in the implementation plan;
- Percentage of annual budget spent.

4.5. Policy effect indicators

The policy effect indicators can be broken down into the following, based on the principles governing the formulation of the AQP:

- Ownership indicators;
- Inclusiveness indicators;
- Coherence indicators;
- Optimization indicators;
- Sustainability indicators.

Ownership indicator proposed:

- Number of issues escalated to the AU Specialized Technical Committee on Trade, Industry and Minerals and successfully resolved because they could not at first be resolved at the level of the AQP Council.

Inclusiveness indicator proposed:

- Percentage of women, young adults and MSMEs among beneficiaries of training/technical assistance activities conducted under the AQP Implementation Plan.

Coherence indicator proposed:

- Number of cases where good regulatory practices have been applied when

reviewing/developing technical regulations.

Optimization indicator proposed:

- Number of decisions taken by the Governance related to prioritization of sectors/products/services or exploiting regional economies of scale

Sustainability indicators proposed:

- Number of funding-related critical gaps in the continental QI identified and escalated by the AQP Council to the AU STC-TIM for resolution;
- Number of members paying their membership dues to PAQI institutions.

13. [Periodic review](#)

This policy shall be reviewed three years after its adoption by the AU and thereafter every 5 years. The review process shall follow the same process of consultation, as was carried out for the development of the AQP.

BUSINESS PLAN

AFRICAN MINERALS DEVELOPMENT CENTRE

A Specialized Agency of the African Union

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Abbreviations and Acronyms

ACFTA	African Continental Free Trade Area
ADF	African Development Forum
AfDB	African Development Bank
AMDC	African Minerals Development Centre
AMV	Africa Mining Vision
ASM	Artisanal and small-scale mining
ATPC	African Trade Policy Centre
ATU	African Telecommunications Union
AU	African Union
AUC	African Union Commission
CASM	Communities and Small-Scale Mining
CEPMLP	Centre for Energy, Petroleum and Mineral Law and Policy
CSO	Civil Society Organization
ECA	Economic Commission for Africa
FDI	Foreign Direct Investment
HRD	Human Resources Development
ICMM	International Council on Mining and Metals
IFC	International Finance Corporation
ILO	International Labour Organization
IM4DC	International Mining for Development Centre
ISG	International study group
SADC	Southern African Development Community
SDG	Sustainable Development Goal
NEPAD	New Partnership for Africa's Development
NPCA	NEPAD Planning and Co-ordinating Agency of NEPAD
OAGS	Organization of African Geological Surveys

PGM	Platinum group metals
RBM	Results-based management
REC	Regional Economic Commissions
RCM	Africa Regional Coordination Mechanism for Africa
RMC	Regional Member Countries
SDI	Spatial Development Initiative
SEAMIC	Southern and Eastern African Mineral Centre
SIFEE	Secretariat international francophone en évaluation environmental SRCM Sub Regional
UNO	United Nations Organisation
UNCTAD	United Nations Conference on Trade and Development
UNECA	United Nations Economic Commission for Africa
UNEP	United Nations Environmental Programme
UNIDO	United Nations Industrial Development Organisation
WB	World Bank

Foreword.

The circumstances surrounding the setting up of the AMDC are unique. The Centre was conceived as the instrument to promote the African Mining Vision – itself a completely novel way to manage Africa’s mineral resources. To begin with, it commenced operations as a Pilot phase during which it was housed at the ECA – A UN entity. This enabled the accumulation of considerable experience and expertise, as approaches were tested, knowledge products generated, and lessons learnt. There were many advantages of this strategy.

Firstly, the Centre could commence operations almost immediately by relying largely on existing ECA staff who had been involved in the conceptual work leading to the adoption of the AMV. Secondly, the location also allowed the Centre to benefit extensively from the facilities – both physical and organizational – from day 1. Thirdly, being located in the key developmental institution in Africa, the Centre enjoyed the spill-over effects of location where related knowledge products were emerging daily. Members attended briefings, presentations, etc, and were constantly exposed to Africa-related policy innovations and initiatives such as the AFTA, African position on the SDGs among others.

Most significantly it started with a generous contribution of approximately \$15 m. At the same time there were hurdles that limited the extent to which the tasks envisaged could be accomplished.

- Firstly, at the conceptual level shortcomings became apparent in implementation due to the Theory of Change adopted. One example was the assumption that after adopting the Continental Vision, the next step would be a Country Mining Vision. On hindsight, this was almost the antithesis of the regional orientation of the AMV. Minerals were to drive continental industrialisation rather than remain constrained by narrow national boundaries within which country mining visions would be determined. Country Mining Policies linked to the sub regional mining policy and aligned with the AMV was a better approach, and this is now underway exemplified by SADC.
- An often-ignored factor was that the AMV was unlike almost all other earlier initiatives at the continental level. The Lagos Plan of Action was a Plan, so were the African Alternative to Structural Adjustment, or the African Transportation Highway. In the case of the AMV, it was a vision, an aspiration rather than a full-fledged Plan, with an institution set up to promote it. Even the addition of the Action Plan later was a step in the right direction but fell short of a full plan e.g. it did not specify and assign actions or tasks to the various partners recognised as having roles to play or who would supervise the actions. One consequence was that without a strong supervisory body to pull it all together, some activities were undertaken successfully but many opportunities were missed.
- Furthermore, the demand-led approach applied during implementation although consistent with operational modalities of UN, was predicated on the availability of perfect information on which demand would be based. The AMV being new,

required a dissemination of the goal's principles and long-term advantages for stakeholders to recognise the NEEDS and in turn DEMAND requisite support services. Put differently, without knowledge of what is available, Demand Is not guaranteed.

- Another decelerating factor was the obligation to conform to practices of a large organization whose rules may sometimes constrain the flexibility needed to respond to opportunities offered for supporting member states in the pursuit of the AMV objectives.
- The Evaluation report⁴² points to the considerable knowledge products and services delivered and makes suggestions for building on the successes achieved and addressing some of the shortcomings observed.

The design of the BP's form and content are influenced by the above as well as underpinned by a Theory of Change to enhance the chances of success for the Centre. The result is a departure, in many respects from the traditional structure set up for single purpose public organizations.

The development of the BP is part of the transfer process for the Centre's relocation to Guinea. Noting the inherent difficulties of transferring a project hosted by an international institution and staffed by its personnel, to a completely new and independent institution, whose future may be perceived as less certain, the BP envisages a scenario for an immediate bridging period to the time when the Centre becomes fully operational.

A final note is that while at the ECA, the Centre's operations benefitted from the existence of well-established procedures, internationally accepted accountability and auditing practices, etc. This new entity will be new and therefore not benefit from the same. Mobilizing funds directly from third parties will be extremely difficult initially in the absence of a credible track record of good performance. Mobilising resources will therefore have to involve a combination of Trust Funds, Cost Sharing or Basket Fund arrangements.

It is important to stress that the 'Business Plan' is conceived for a Centre that is a Specialized Agency of the AU. Thus, while providing public goods and services directly and indirectly, to Member States, guided by the Statutes adopted by the Heads of States, it must also have the capacity and flexibility to deal with the private sector.

⁴² The ECA commissioned an independent Evaluation of the performance of the project in 2017.(unpublished) that produced useful recommendations.

Executive Summary

The African Minerals Development Centre was established by the Assembly of Heads of States in Africa to be the instrument to support member states implement policies and programmes for the realization of the African Mining Vision. The Vision consists of securing optimal gains from the African continent's minerals resources through better governance of the sector, establishment of minerals-based industries, structural transformation, and sustainable development. The Centre was first located within the ECA as a project for five years at the end of which it has to be transferred to the Republic of Guinea as a full-fledged Specialized Agency of the African Union. This document sets out the Business Plan that will guide the operations of the Centre initially for the next five years.

This Business Plan consists of five parts. The first describes the corporate strategy of the Centre; the second, the business model; the third, its organizational structure; the fourth outlines the financial arrangements for its activities and the fifth is the section on Monitoring and Reporting. An indicative budget for the first five years is also presented in the Annex.

Corporate Strategy. The Assembly of Heads of States has adopted Statutes for the Centre that outline the Governance structure, the Vision, Mission and Objectives of the Centre. These form the basis for the Theory of Change used to define the Corporate Strategy: how the Centre will operate and what services and products it will deliver in support of member states actions. In addition, the strategy draws from the lessons and experiences of the successes and challenges achieved and encountered during the Project phase of the Centre. The obvious lesson is that a continental approach to managing Africa's minerals endowment is clearly superior to the past and current practice of fragmented and isolated exploitation of these resources whose occurrences are not restricted by political boundaries. Moreover, the large investments and technology for their exploitation are largely found in foreign direct investment whose objectives do not always coincide with the collective strategies of member states. Changing from past practices to a new approach requires significant policy reforms based on carefully developed knowledge products, institutional arrangements and inter country collaboration that must include the private sector and other stakeholders. The pathways identified in the ToC are carefully and extensively presented to serve as the guide for the Centre when it becomes fully operational.

To summarize these; the Centre will directly deliver services related to Policy, Governance, as well as inter-country level type actions for which it is uniquely positioned to do. The evolution of the global economy and recent advances in technology have imposed additional tasks for the Centre if it is to fulfil the mandate of the Heads of States. In particular the emergence of new uses of hitherto low-valued minerals found extensively in Africa, call for cross regional collaboration, to potentially capture the full value chain, and in turn position Africa better in the global political economy to avoid the repetition of

the 1884 Partition of Africa⁴³. This will entail constant scanning of global economic developments for their implications on the realization of the Vision.

At the national level, the Centre will provide support for the formulation of a new generation national policies or revisions, that incorporate the principles of the AMV and set the framework for securing optimal benefits from the minerals industry for the member states. Such principles include greater integration with the rest of the economy through linkages, more equitable contracts with FDIs, better monitoring and supervisions of contract provisions, application of better environment-friendly technology in mining, and the collection and management of geological information for economy-wide policy making.

For other areas such as minerals-based industrialization, inter-country trade, ASMs and Geological information collection and management, the Centre's role will revolve around coordination, leadership and promoting capacity and knowledge development to deliver support where possible through partnerships, to member states and their partners. The adoption of the Africa Continental Free Trade Area is a major milestone in the pursuit of industrialization. The cross country and regional trade and exchange in minerals and minerals products is an integral part of the strategy for minerals-based industrialization and structural transformation. In order to exploit the opportunities opening up by the AFTA, African businesses have to be mobilized and encouraged to invest in minerals. A special effort will be needed to include the private sector and civil society groups. The Centre will act as the convener of both sets of stakeholders and so create the space for African businesses to operate and blossom.

The theory of change underpinning the strategy outlines the pathways for success in respect of each Goal. The inter relationship between the Centre, and partners to deliver on the AMV is captured in the narrative around each Goal and shown in the Results Framework contained in Annex 1.

Business model. How products and services are to be delivered. From the corporate strategy outlined above, the business model that would best deliver products and services for the realization of the AMV is a hybrid of direct and "shared" service provider. For certain outputs that are key to generate outcome changes, only the Centre can deliver them directly by virtue of its political and legal mandate combined with the experience from the considerable work done during the project phase. For others, the Centre will work closely with RECs and other partners of Member States, sharing the delivery of products. In these latter cases, products and services will be delivered through partnerships.

Advantages of this model include:

- cost effectiveness; by focusing on the delivery of results rather than creating a bureaucracy;

⁴³ Africa was not represented when the then colonial powers decided on the partition of African continent.

- capacity development of African institutions; collaborative work with such partners will serve to augment their capacities;
- more widespread sensitisation and mobilization around the Vision with a unity of purpose for the multiple actors in the minerals space; advocacy and sensitisation will be a core part of all activities;
- avoidance of duplication of efforts by concentrating on areas where the Centre has a competitive and comparative advantage and stressing collaboration and joint work; and finally
- creation of another avenue for promoting regional collaboration that is based on functions and with direct involvement of the private sector.

Structure and Organization. How the Centre will be organized to deliver results expected? From the Corporate Strategy and the Business Model, the Centre will consist of senior level Specialists with the capacity and experience to interact effectively with Principals of Partners and give seasoned advice to member states. Initially only the staffing to deliver minimum services as the Centre matures and establishes itself is proposed. Extra-budgetary resources can be mobilized to complement the work of the Senior Specialists. A total complement of 9 professional staff is envisaged for the first 2 years after which the full minimum of 22 is recommended. After the first five-year review the staffing arrangements can be revisited by the MAB.

The designation of the Centre as a Specialized Agency of the AU is vital to its success. Not only because of the political clout that is implied, but more importantly a recognition that the Centre need not be bound by the bureaucratic rules of inter-country Centres. It is obliged to pay competitive rates for its staff, benchmarked against similar institutions in order to attract the best expertise that in turn will be capable of offering world class advice to member states.

Financial Arrangements. A major risk for the Centre is the availability of funding, especially in the first two years. In addition to the core budget to be funded by the Conference of States Parties, other funds will be mobilized using a combination of funding mechanisms. These will include Basket Funds, Parallel financing, and Trust Funds.

Conclusions. This Business Plan will serve as a guide for the new Centre. It is not a straitjacket. It contains the key elements for the formulation of a full Operations plan once the minimum staffing requirement is attained. The contents present how the narrative that has dictated the management of one of the continent's richest assets can be changed. To accomplish this major task envisaged in the African Mining Vision requires a complete rethink of the way the sector has been perceived so far. Rather than being limited to its extractive phase, the Vision is to capture the full value chain of the Minerals industry efficiently. Such a change demands radical and innovative alterations to past concepts and practices. The Government's adoption of the AMV is itself a manifestation of the solid commitment at the highest political levels in the continent. This Commitment must be sustained and even reinforced to guarantee successful progress in the new pathways being cut in the continent's development journey. This Business Plan arms the AMDC to carry out the technical work required.

Chapter 1. Introduction

In 2009 the Heads of States of the African Union (AU) adopted the African Mining Vision (AMV). This Vision is of “a transparent, equitable and optimal exploitation of [Africa’s] mineral resources to underpin broad-based sustainable growth and socio-economic development”. The AU Summit Decision EX.CL/Dec.714(XXI) of July 2012 formally endorsed the AMV Action Plan and called for the establishment of a Minerals Development Center.

The AMV covers in many ways the full spectrum of development activities ranging from governance to infrastructure, from improving efficiency in the extractive phase of the minerals industry to capturing the full value chain of a mineral within the continent. Its transformative nature is most evident in the continental industrialization envisaged. Covering such a wide range of development efforts, the Heads of States specified the main Objective of the Centre in Article 3 of its Statutes as:

“... to coordinate and oversee the implementation of the AMV and its Action Plan to enable the Mineral resources sector play its role in the social and economic transformation, inclusive growth and sustainable development of African economies, in conjunction with member states, RECs, the private sector, civil society organizations including women and youth organizations, collaborating institutions and other key stakeholders.”⁴⁴

The evolution of the global economy and recent advances in technology have imposed additional tasks for the Centre if it is to fulfil the mandate of the Heads of States. In particular the emergence of new uses of hitherto low-valued minerals found extensively in Africa, call for the identification of those requiring cross regional collaboration, to potentially capture the full value chain, and in turn position Africa better in the global political economy to avoid the repeat of the 1884 Partition of Africa⁴⁵. Constant scanning of global developments for their implications on the realization of the Vision will therefore be instrumental.

In 2013 the African Minerals Development Centre (the Centre) commenced operations as a project to provide member states of the AU the technical support for the realization of the AMV. The Centre was initially located in the UNECA for five years - up to April 2018. At the end of the project, the AMDC was temporarily relocated to the AU

⁴⁴ Emphasis added

⁴⁵ Africa was not present at the table then.

Headquarters in transition to the final location in Conakry Guinea. During this transition period the earlier structure, institutional arrangements, staffing and activities of the project phase are no longer in place. The Centre is to be relocated to Guinea and, and set up this time as a fully operational Specialized Agency of the African Union. This document presents the Business Plan for the Centre.

A Specialized Agency of the AU. (SA) The AMDC has been designated a SA. The definition of a SA now recommended⁴⁶ for adoption by the Assembly is

“An autonomous legal personality established or endorsed by the Assembly to perform specific tasks of technical and/or scientific nature in support of, and accountable to the Union for its contribution to the attainment of continental developmental goals and aspirations; that subscribes to good corporate governance principles and financial management practices, consistent with the values of the Union.”

Hence, while the AMDC is autonomous, it will follow and subscribe to the recommendations as adopted by the Assembly. These relate to the nature of engagement with the AUC, division and sharing of labour, and reporting system to the Assembly. Otherwise the autonomy of the Centre is sacrosanct. The BP is therefore designed within this framework.

The AMDC Statutes specify three organs for the Centre;

1. **The Conference of State Parties** – the supreme Governance body;
2. **The Minerals Advisory Board (MAB)** – Supervises the DG and the Centre while also ensuring implementation of the Centre’s work programme. The MAB also recommends the budget submitted by the DG for approval by the Conference of State Parties.
3. **The Secretariat**⁴⁷ – implements the programmes of the Centre.

⁴⁶ Recommended by a Workshop of SAs organized by the AUC in Harare, May 2019 to validate the recommendations of a Study it had commissioned on the Policy Coherence between the AUC and the SAs

⁴⁷ The Centre and the Secretariat are used interchangeably in the text. However, the AMDC was approved by the Summit as a Centre to support member states implement the Vision. The use of the word Secretariat can lead to confusion about respective responsibilities. It is simpler for the Statutes to describe the Board and the Conference as supervisory organs. This anomaly should be corrected in the Statutes as soon as possible. Annex 4 is a proposal for the MAB to set up its own Technical Sub Committee that would simplify and clarify the delineation of responsibilities.

The BP consists of five Parts:

- I. **the Corporate Strategy** – outlines the contents of What the Centre will do and is derived from its Mission and Vision as well as the Objectives stipulated in the Statutes;
- II. **the Business Model** – describes what type of services the Centre will deliver directly, and indirectly in collaboration with Partners;
- III. **the Structure and Organisation** – shows the human resource complement to implement the mandate, and their inter-relationships within the Centre;
- IV. **Finance and resource mobilisation** – present an indicative budget for the first five years as well as methods for mobilising additional resources beyond the core budget;
- V. **Monitoring, reporting and evaluation** – spells out the monitoring and reporting arrangements for both the Centre and for the AMV as well as provides for Evaluations during the first phase

Chapter 2. Corporate Strategy

3.1 Vision.

An integrated, prosperous and peaceful African continent achieved through the promotion and use of mineral and energy resource-based development and structural transformation.

3.2 Mission

To support AU member States and their national and regional organizations in the full implementation of the Africa Mining Vision in collaboration with Strategic Partners

3.3 Objectives, Outcomes and Theory of Change (ToC)

The objectives of the Centre as spelt out in the Statutes adopted by the Executive Council of the Heads of States in July 2013 are listed below. These Objectives, when pursued in the context of the Mission of the AMDC, will lead to the realization of the Vision. Recalling that In the past, the Continent mainly benefitted from the extractive stages in the exploitation of its minerals endowment and even then, bad contracts and poor monitoring and supervision saw the lion's share lost to exports abroad, the AMDC's task is to support member states and their partners implement reforms and programmes to change this narrative and realize the Vision

The Theory of Change is used as the analytical tool underpinning the strategy, mode of operations and pathways for the Centre to carry out its mandate. More specifically, it explains the circumstances (conditions, assumptions, risks, underlying logic and pathways) in which, the Centre's operations will lead to the realization of the AMV. Thus,

the ToC maps out how pursuit of the Objectives set, individually and collectively, will produce the results expected in the Vision.

3.4 Objectives (as provided in the Statutes)

The main objective of the Centre shall be to coordinate and oversee the implementation of the AMV and its Action plan to enable the mineral resource sector play its role in the social and economic transformation, inclusive growth and sustainable development of African economies, in conjunction with Member States, RECs, the private sector, civil society organizations including women and youth organizations, collaborating institutions and other key stakeholders.

The specific objectives of the Centre shall be to:

- a) ensure that there are coherent policies and robust regulatory and legal frameworks on exploration, exploitation, licensing, contracting, taxation, exporting, mineral processing and handling at the national level which are harmonized at the regional and continental levels;
- b) develop a diversified and globally competitive Africa mineral industry which contributes to broad economic and social growth through the creation of economic linkages;
- c) contribute to the regional integration agenda and the boosting of intra-African trade;
- d) promote good governance in mineral resources development for the betterment of local communities in Africa;
- e) foster sustainable development principles based on environmentally and socially responsible mining, which respects human rights, health and safety of the local communities, workers and other stakeholders; and
- f) contribute to the Plan of Action for Accelerating Industrial Development of Africa (AIDA) through promotion of beneficiation, value addition, industrial linkages, responsible investment.

These Objectives, and the AMV goals form the framework for the Corporate Strategy. The ToC identifies the circumstances and pathways, as well as the results (outputs) that together will lead to what is described in the Vision. What should be done and how, constitute the Corporate Strategy. Figure 1 below describes the flow and relationship of the various components of the Strategy, while Annex 1 is the Results Framework that shows the details of the relationships among the different results to be produced by the Centre.

3.5 Corporate Strategy

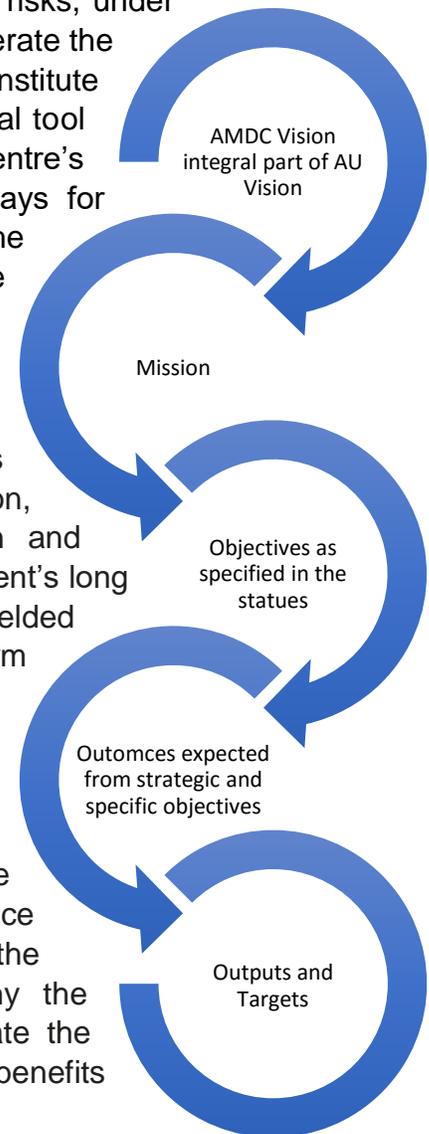
The Corporate Strategy. The conditions, assumptions, and risks, under which the activities, and outputs of the Centre, will in turn generate the development changes (outcomes) envisaged in the Vision, constitute the strategy for the Centre. The ToC is used as an analytical tool for tracing the complex changes required to achieve the Centre's raison d'être and thus determine the most feasible pathways for making those changes happen. It is the foundation for the Corporate Strategy showing what is to be done, as well as the methods/measures to be adopted for the Vision to become a reality.

3.6 Problem Statement

The AMV is a continental vision for managing the continent's mineral resources differently from the past. In this vision, Minerals are considered a key driver of industrialization and transformation of economic structures essential for the continent's long term sustainable growth. This also means that the benefits yielded along the value chain, from the extractive phase to its final form should be optimally shared among the various stakeholders. At the same time improved governance of the sector will reduce if not eliminate, the negative effects⁴⁸ of mineral exploitation characteristic of the past.

Challenges. The extractive segment of the minerals value chain remained in African countries after political independence was granted, while the more lucrative segments were now in the metropolis in the North. This legacy partly explains why the Extractives section of the value chain for minerals dominate the minerals sector in Africa and why the greater part of the benefits accruing from the full chain are outside the continent.

Furthermore, the extractive sector (in reality a sub sector of the Minerals industry) has been managed within national frontiers, although geological occurrences are not defined by political boundaries. The fragmentation of the continent into separate political units, each focusing on what was found within its frontiers has handicapped the sector. It should also be noted that resources, in terms of funding, energy, access to research and



⁴⁸ Such negative effects, broadly referred to as the natural resource curse include; illicit financial flows from the country, environmental degradation, unfair distribution of benefits through transfer pricing and unfair contracts, very limited linkages with the rest of the economy, vulnerability of the national economy to external shocks, Dutch Disease effects on mineral dependent economies, human rights abuses including low productivity in the ASM sub-sector, etc.

technology that were required in the higher levels of the value chain were relatively available outside Africa and the private sector found it easier to continue with the traditional division of production patterns. Many of these circumstances and conditions can now be interrogated and deliberate policy reforms and action can change the outcome.

While the Extractive sector in many member states account for the lion's share of export earnings, internal governance issues including bad contracts, some policy contradictions, weak linkages with the rest of the economy and poor management have often produced negative or suboptimal results that sometimes even fuel conflicts.

Opportunities. As the countries in the continent advance up the development ladder, construction of infrastructure, expansion of cities and enhancement of communication networks create demands for mineral products, most of which are currently imported. This is therefore a major opportunity to restructure production patterns as major sources of clean power are to be brought on stream in the continent, the elimination of trade barriers is in the immediate horizon, and greater opportunities for the flow of FDIs including indigenous investments are materializing.

At the national level, there is growing democratization and accountability for results that are showing signs of better public sector performance that should address the internal issues of the past.

Furthermore, the emergence of new uses of minerals⁴⁹, as well as revolutionary changes in the technology of extraction and processing, including technology destruction are constantly changing the landscape of the mineral industry worldwide, but with many sources located in the African continent.

3.7 Pathways to the Vision.

The vision for exploiting minerals from a continental perspective therefore calls for a major change in the conceptual, institutional and political solutions adopted so far to deal with the minerals sector in order to realise AMV's principles and objectives.

Figure 7

In the changes envisaged, improving internal governance and capturing the more lucrative links in the value chain such as manufacturing and processing industries and the related support services will enhance Africa's development and sustainability

Regional and cross-regional arrangements must be reinforced or created, for which a wide variety of actors will have to be involved. Recognizing at the same time, that it is at the national level that the bulk of such actions will take shape. The task of the Centre is

⁴⁹ Africa is estimated to possess huge reserves of Cobalt, rare earth minerals, etc

to support member states in order to weave these multiple strands together into a continental tapestry shared equitably and owned by member states.

Against this complex background the ToC is conceived at two levels: the continental level (macro) - involving both cross-country and cross-sub regional actions - and the national level (micro) where actions internal to the country are adopted. For clarity the TOC is described for each of the five Goals.

3.8 Goals.

In order to facilitate analyses, the Mission, the Objectives as stated in the Statutes, and the Results Areas identified in the AMV Action Plan, have been organized around five Goals and a sixth added to include the activities of AMREC:

1. Policies consistent with the principles of the AMV, including governance and participation in the minerals sector (incorporating Objectives A, C and D).
2. Minerals as a driver for Industrialization, facilitated by inter country trade in the African continent (Objective B and F).
3. Enhanced geological and mineral knowledge and information systems for development (central to the Main Objective and incorporating part of Objective A).
4. Modernized artisanal and small-scale mining sector fully integrated into the formal national and regional economies (Objective E).
5. Sustainable and integrated management of Africa's mineral and energy resources, business process innovation and efficient capital resources allocation
6. Follow-up, Coordination and Reporting (derived from the main Objective).

To reiterate, the objectives and implied Goals of the AMV are already set and found in the AMV document. The next step therefore is to determine the Outcomes for each Goal, i.e. the changes desired in the continent's development trajectory, as envisaged in the AMV. The ToC presents the logic, conditions and pathways under which the Outcomes and their related Outputs will lead to the Objectives and Goals.

In addition to the thorough analysis underpinning the principles and actions of the AMV are being pursued, the following are emerging developments that pose risks as well as offer opportunities to the AMV agenda.

The ToC underpinning the BP of the Centre.

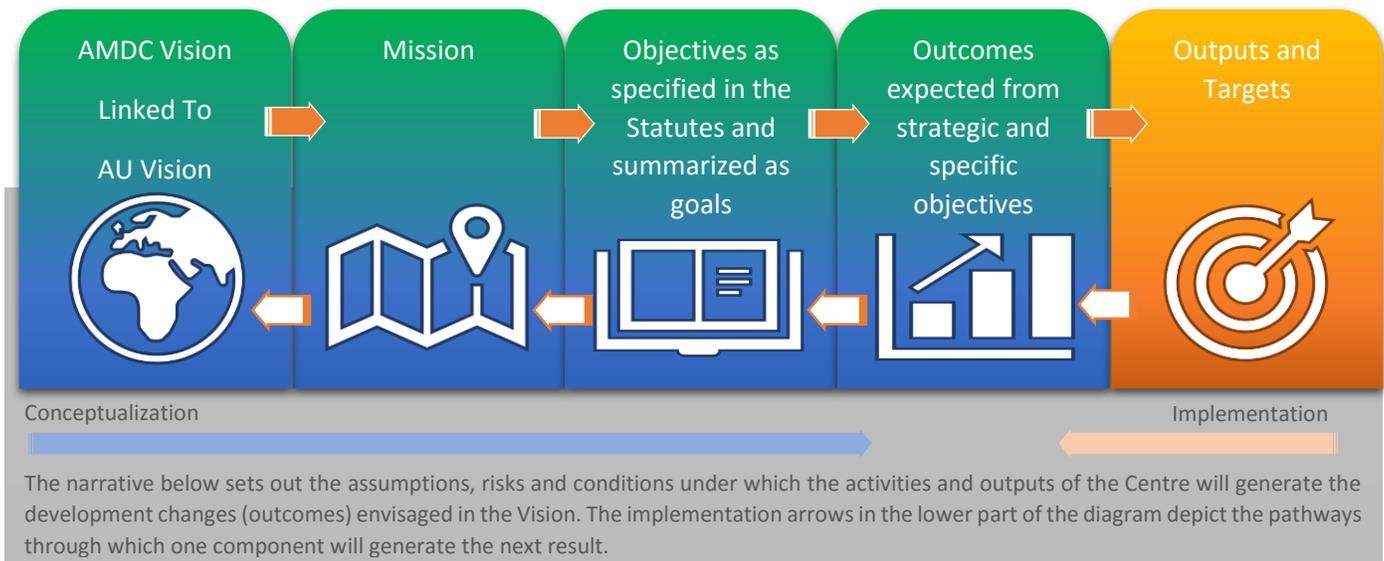


Figure 8

Moving from left to right is the conceptualization phase and is the skeleton of the log frame at the strategic level. Here the Vision, and Objectives determine the development changes i.e. Outcomes needed. When these are put in the framework of the Mission, the corporate strategy emerges, showing what the Centre should deliver and how to best do it.

The implementation is represented at the bottom part of the diagram showing that the movement from right to left leads to the realization of the Vision. The pathways are identified by the ToC and detailed in Annex 1.

The narrative below explains some of the key challenges faced in the transformation of the Vision to reality

1. There are tectonic shifts now taking place in the world's political economy: new global alliances are being forged in preparation for a future known primarily by the impossibility of its prediction; beyond that it will be radically different from the past. Technological advancement (disruptions) is altering production structures, and trade patterns are changing in tandem. Climate change, alternative energy sources particularly the move to battery sources and electric cars, all present opportunities and threats for Africa's minerals endowment and its market. These are new factors that require new measures to avoid new forms of leakages in the benefits from mining.

2. The vast minerals deposits, increasing importance of hitherto low valued minerals in Africa, combined with the continent's demographic configuration make it a partner of choice for the future. However, unless there are deliberate and carefully calibrated strategies with accompanying instruments to exploit these opportunities, the continent will be seduced into another century or so, of the post 1884 Partition of Africa, that left the greater part of the continent in a state of permanent dependency on the rest of the world. The African Mining Vision presents one such strategy, and the AMDC is the primary instrument for supporting the continent to carry out plans, programmes and activities to realize the Vision.
3. Realizing the AMV, gets more complex but more pressing as the rest of the world prepares for relationships with Africa defined primarily by self-interests couched in near altruistic terms. Unorthodox methods and instruments are on offer in tandem with new uses and new technology that render old practices obsolete. All this without clear indications of a future that may be different from the past for Africa. A striking example is the introduction of low-cost technology that now extracts alluvial gold more efficiently, generating a dangerous boom for Artisanal mining in traditionally lucrative agricultural lands in Ghana and Cote d'Ivoire etc. The consequences include the abandon of cacao plantations in some areas, and in others, the destruction of the environment. In addition, greater access to the continent's minerals endowment that can be mined in forms yielding quick returns to artisanal miners, is turning agricultural societies to mining communities overnight.
4. Member states have well established systems for promoting development within each state, yet geological formations cut across national frontiers. In such circumstances changing to the joint planning at regional and sub regional, as well as cross-country initiatives implied by the AMV can be extremely difficult yet essential for optimizing the gains from the minerals endowment of the continent.
5. Realizing the Vision depends as much on public sector reforms and actions as on private sector initiatives to recognize the win/win opportunities in the AMV.

These developments further complicate the task of the Centre and justify the combination of the macro and micro level approach of the ToC, as well as confirm the validity of the direct and shared services business model.

At the macro or continental level, the goal is a peaceful and prosperous continent where mineral resources are used to leverage structural transformation, industrialization for sustained development and improvement in welfare of citizens. The Centre's task, defined as to support member states and their partner institutions achieve this result, is therefore vast and complex, and can only be accomplished through collaboration with

others while also, delivering certain services directly. More specifically the Centre will forge partnerships with relevant institutions for certain services within the latter's core areas of expertise, while focusing on delivering services and products that are peculiarly AMV, and for which it has a comparative advantage to deliver. In an environment of scarce resources, the Centre will put in place mechanisms to avoid overlaps and promote complementarity.

At the macro level three sets of activities will be covered:

1. Cases requiring facilitation of cross-country and cross- subregional collaboration. An example is the location within Africa, of most of the battery and electric car value chain, with sources spanning different countries and sub regions; DRC (cobalt and copper), Zambia (copper), Mozambique and Tanzania (graphite), South Africa and Gabon (manganese), Botswana, Tanzania and Burundi (Nickel) that together can leverage Africa's bargaining power in those minerals to collectively position the continent strategically in the higher echelons of the related global value chains.

Identifying these types of opportunities, encouraging cross-country action, and promoting or marketing them are best planned at the sub regional and continental level. The AMDC through its work stream on industry, will work in collaboration with RECs and relevant partners for this component of the Vision to become a reality. Goal 4 below, is pertinent.

2. Research. Given the rapid advancement of mining technology creating disruptions with far-reaching effects on employment and production efficiency, knowledge products will have to be developed at national, sub regional and continental levels. The Centre will encourage and promote this at all levels. It would require some capacity for promoting and coordinating research, functioning as the repository of information, and to be the source of choice for access to knowledge on the continent's minerals sector. The Centre will also advocate internationally and nationally for AMV continental level issues.

3. Monitoring and reporting on the progress towards realizing the Vision, as distinct from monitoring the efficiency of the Centre, are essential to ensure that activities remain on course or when appropriate, for adjustments to be made both for the AMV and for the Centre's activities. In addition, scanning the global environment constantly for developments that are important to the Vision will provide valuable inputs to policy makers for taking pre-emptive or corrective action.

All the three sets of actions at the macro level cut across countries and sub regions.

3.7 Risks at the Macro level.

A major risk is that important and influential Institutions operating in the economic policy space in the continent do not embrace the Vision and support the role of the Centre as designed by the Assembly of States, or only pay lip service but create parallel structures to carry out the same activities. This will lead to confusion, duplication of efforts and waste of resources and goodwill. It is therefore important that members of the Assembly of States both individually and collectively be regularly apprised of developments in the minerals sector

Inter-country industrialization often flounders over the distribution of benefits among the countries. This remains a major risk as long as short-term gains overshadow longer term and greater benefits to all parties in the context of a more unified continent. The success of the macro level action therefore depends on the approach to inter country collaboration to be adopted. Evidence from other other parts of the world suggest that public/private initiatives to find pathways for joint action tend to be more successful and rapid without compromising the interests of member states. The Centre will identify, facilitate, coordinate approaches and measures for risk mitigation.

There is also a slightly different risk; insufficient collaboration either by member states or by other actors, could leave the proposals or initiatives without follow-up action. A way out will involve regular reports to the State Parties with strong recommendations to unblock actions. Another approach is to associate the private sector in initial implementation of different initiatives in an attempt to get “buyers” from the onset. From the point of view of accountability, the association of national champions could constitute strong lobbies to press for inter country action and thus help to reduce risk.

3.8 Goal Descriptions

For each Goal, the narrative of the Theory of Change that underlies the approach adopted is presented.

3.8.1 Goal 1 – Policies Consistent with AMV Principles

These include governance and participation in the minerals sector (incorporating Objectives A, C and D). Essentially, this frames the legal and regulatory environment of the sector within which the AMV principles can be rooted.

The expected outcomes are:

- I. New or revised policies and regulatory frameworks harmonised at the national, regional and continental levels;
- II. Contractual terms for investments that are consistent with the AMV, and
- III. Socially and environmentally responsible mining that respects human rights, particularly the rights of women, children and vulnerable groups.

The AMV specifies in some detail how the minerals sector should be governed; principles of inclusion and participation, adequate compensation for the loss of alternative sources of income, social and health protection, transparency and accountability etc. A strategy, policy or vision at the level of the country – equivalent to a Country Mining Vision – must incorporate these principles.

Furthermore, the UN Guiding Principles for Human Rights and Businesses provide pointers for the obligations of the private sector and the responsibilities of host governments. The Centre's role will be to actively support the revision or formulation of national and sub regional policies as the ideal starting point for pursuing the Vision, but other approaches such as the use of Gap Analyses, are also feasible pathways that would lead to the changes envisaged. It should be stressed that the contractual terms offered for foreign investments need to be appropriate in order to become a part of the change process rather than business as usual. Developing a model agreement could constitute a broad template to guide negotiators as well as help pre-negotiations preparations.

Risks. The consistent commitment and the involvement of the political leadership and civil society are essential conditions for success. There is a high risk of failure when these are absent. Again, strong leadership from the Conference of State Parties could mitigate such risks.

3.8.2. Goal 2 – Trade and Minerals for Africa's industrialisation and structural transformation.

At the onset of independence, the minerals sector in Africa was with few exceptions, parts of the wider industrial complex for minerals but with the extractive phase located in the edges of the colonial economy – i.e. in Africa. Upon gaining independence, the extractive phase was left in the former colonies yielding only the relatively low level of benefits that accrue in this phase. The AMV seeks to change this narrative by capturing as much of the links in the entire value chain for minerals as possible for relocation in the continent, and in the process transform the structure of the economy.

The Outcome expected are:

- I. industries based on the mineral endowments in Africa be a part of the continent's industrialization.
- II. Enhanced inter country trade in minerals and minerals products, and
- III. Structural transformation

This is arguably the most ambitious and yet most transformative Goal. The intention is to expand minerals sector in Africa beyond the Extractives phase to include subsequent phases, such as processing of intermediate products and even manufacturing final products within the wider industrial sector. The obstacles to be tackled include dealing with discordant policy prescriptions, short term and narrow nationalistic worries etc. These are not insurmountable and require careful study and analysis to formulate appropriate strategies for solutions that are demonstrably win/win for all and consistent with the Continental vision.

The discovery of vast amounts of gas, and the potential availability of power now make the location of energy intensive industries within the continent a real possibility. To do so will involve cross-country and cross-regional collaboration; firstly, to connect cross-country links in the value chain of minerals. These links in turn will spawn the production of intermediate products that are ancillary inputs to others. Secondly, setting up satisfactory “linkages”, will allow larger scale production, lower unit costs and more competitive industries. Linkages at both the national and sub regional level will form building blocks for the capture of the entire value chain.

The adoption of the African Free Trade Area is a major milestone in the progress towards augmenting inter country linkages in the minerals sector. Noting that this is an essential part of the industrialization process, trade policy must factor in the nexus of intra African trade and industrialization that would lead to improvement of welfare for the citizens through more competitive pricing and access to wider variety of goods and services. An important component of the trade policy will be the encouragement and use of local capital from countries where there are excesses but lower returns.

In order to achieve the Outcomes, Outputs through the AMDC will have to include, value chain studies and policy recommendations, for specific minerals. It is important to stress again the role of the private sector, not only to avoid the errors of the past but also to create the space for expansion and development of regional businesses – and this could include joint approaches with FDIs

The elimination of trade barriers for minerals and the opening of inter-country highways, the free movement of capital flows within Africa are all central to the success in achieving this outcome. The Centre alone cannot generate these results, hence carefully forged partnerships will be the pathways to proceed.

Another pathway ignored in the past is the development of low-valued minerals such as dimension stones, clay, etc. for construction. Currently these are exploited mainly through low productivity artisanal and small operations. These can generate large dividends through industrialization and introduction on modern technology. Here the Centre’s role will be to help create the policy space for development of private initiatives within country. There will also be spinoff effects on the ASM subsector. Here is yet another case for the involvement of the private sector. Initial results from projects undertaken by the UNDP and the EU show promising signs that could be replicated.

A dimension often omitted concerns tracking the evolution of the global political economy and its impact on the minerals sector in Africa. To illustrate, it is now generally accepted that the future for power generation is electric and electronic. Fossil fuels are being replaced by batteries and sand-bearing rare earth metals are being guzzled up to produce mobile phones. At the same time the disposal of the used products poses major health hazards that not even advanced countries have found satisfactory solutions so far. In 2017 Europe set up a European Battery Alliance. The World Economic Forum has also set up a Global Battery Alliance. Africa, expected to be the largest supplier of the raw materials and potentially the highest growth market must be a major player, not as individual countries but as a single interest group. The risk lies in the absence of a clear plan by the continent to put in place responsive measures. The AMDC will be well placed to play this coordinating, watchdog and facilitating role for the continent.

3.8.3. Goal 3 – Enhanced and Accurate Geological and Minerals Information for Development

The expected Outcomes are:

1. improved geological information, geodata management systems and infrastructure used for governance of the minerals sector, investment and for wider development; and

The outcomes are desirable at both the national and sub regional levels. The management of a resource is best done with comprehensive knowledge of its nature, size, quality etc. So far private companies tend to collect and store such information as they undertake exploratory work and actual mining. The pathways leading to this outcome involves the Centre leveraging other partners whose core mandates address different dimensions of the Goal. Using the targets in the Action Plan as guideposts, the strategy will be to enter into partnerships with such entities (AMGC, ...) that will promote the identification of opportunities, facilitate and coordinate the production of outputs at the country and sub regional levels that will lead to the AMV goals.

Risks

The funding required at the national levels are not forthcoming.

3.8.4. Goal 4 – ASM

The expected Outcomes:

- I. full integration into the national and regional economy and
- II. value chains for ASM type minerals located within the continent.

The gap between this ideal and the current realities is characterized by both negative factors that are well known: viz operates outside the formal economy and not subject to official controls, vulnerability to a wide range of illicit activities, and the prevalence of human rights abuse; as well as positive factors that include provision of livelihoods for many hovering at the poverty line, generating seed money for a few small businesses,

and and keeping unemployed youth occupied. Notwithstanding the depressing associated indicators, a sustainable solution has eluded several attempts in numerous countries around the world.

The solutions must at a minimum contain comprehensive – including synthesis of studies – diagnoses of, and reorganization plans for the ASM sector in each country and related sub region.

Risks. The risks of failure in this sector could occur if the traditional approach of focusing on formalization through donor-supported incentives is continued. These tend to appear to work as long as donor financing is available. More importantly, if the currently positive roles such as the provision of livelihoods, the existence of a strong internal code of conduct etc are ignored. Additionally, the dynamics of the political economy of the sector are germane to understanding how it operates and why. Hence a comprehensive approach at addressing root causes of informality both in this sector and in the rest of the economy will be a major change that would reduce the risk of failure.

3.8.5. Goal 5 – Sustainable and integrated management of Africa’s mineral and energy resources, business process innovation and efficient capital resources allocation

Expected Outcomes:

- enhanced resource classification and management as envisaged by Africa Minerals and Energy Resource Classification and Management (AMREC) and other African based classification initiatives.
- Strengthened capacity for business process development and management across the value chain to take on the challenges of the future
- Increased right-investment in resource development projects
- Improved capacity and capability of Internationally recognized Competent Persons (Pan African Reporting Code -PARC)
-

This Goal represents the AMREC initiative, containing its own TOC. It has been added to the list because the AMREC will be temporarily hosted by the AMDC.

Risks

The preparatory work for AMREC may suffer from initial funding.

3.8.6. Goal 6 - Programme Reporting

Two types of reporting are to be produced; reporting on the Centre’s performance as an institution, and reporting on continent-wide progress towards achieving the AMV goals. As a SA of the AU, it’s report will be incorporated in the AUC’s submission to the Heads of States Assembly. Reporting on progress towards the AMV will include direct achievements and an overview of developments in the domain of minerals-based industrialization. This activity will also be an instrument for coordination and facilitation, such reporting would additionally outline policy measures to address or take account of

emerging trends such as in Technology. A dimension often omitted concerns tracking the evolution of the global political economy and its impact on the minerals sector in Africa.

Risks. The major risk here is indifference. If the initial momentum created during the pilot phase fizzles out, the Vision will be unrealized. An obligation to report regularly keeps the Vision on the radar screen. There is also the danger of such reports being left unattended, but this can be reduced by sensitizing the public including officials on the importance of such developments

To conclude, for each of the Goals, the ToC outlines how they can be met. This rationale illustrates the design of the Centre; its corporate strategy, business model, organizational structure and financing strategy needed to achieve the overriding goal set by the Assembly of the Heads of States.

3.9 Success Indicators

How will success be measured? For the purpose of the Business Plan, Success should be measured at two levels. The first should trace how the goals of the AMV are being met – in this case impact indicators, and the second should measure the extent to which the Outcomes are being produced – outcome indicators.

Given the all-encompassing nature of the AMV, and the desired impact on structural transformation, sustainable growth and welfare of citizens, a number of the related SDG indicators will be satisfactory proxies measures of success in achieving the AMV. These are indicators of impact that are being traced elsewhere and need not be the focus of the work of the Centre. Success indicators at the outcome level are more relevant to judge the success of the work of the Centre specifically and are contained in the Results Framework.

The Results Framework (RF) in Annex 1 presents the relationships in a classical format: from Goals, Objectives, Outcomes, Outputs (key only), and success indicators at the Outcome level. An additional column serves to provide information of the broad strategy required for success. The more comprehensive RF that would include all outputs, Activities, Inputs, and their costs will be prepared by the Centre's staff once in operation.

Chapter 3. Business Model

The Business Model is a description of how the Centre will deliver the services required for realizing the AMV. Noting that decisions setting up the AMDC and the Action Plan stipulate that the Centre should work in collaboration with Strategic Partners, and member states and their institutions for the realization of the AMV, the role of partnership is key for overall success.

Given the nature of the Centre, its purpose, the range and size of services/products required for realizing the AMV, and the lessons learnt during the earlier Project phase, the Business model for carrying out its mandate combines elements of Basic Provider ie the Centre has full responsibility for providing a service or product, and Shared Services models where the provision of the product or service is shared with a third party. The first model provides products and services directly to the Member states and RECs, while the second operates through, or with partners and others for the services to be provided. Together, these constitute a hybrid model.

After 5 years as a project, the AMDC has accumulated a wide range of knowledge products related to the AMV. Such products emerge from the creation of the AMV and therefore tend to be peculiar to the AMDC. For such products the Centre therefore holds a comparative and competitive advantage; making it ideal for direct delivery of such services and products to member states. To illustrate, the Centre will provide basic services related to the AMV such as: support in formulating AMV-aligned Minerals Policy, popularizing the goals and principles of the AMV among others who are major players in the Minerals space. These include the RECs, and Development Partners.

For direct services, the Centre must focus on areas from among the Objectives and Outcomes and related Goals for which it can deliver the services directly (where it has comparative advantage). These are in the areas of AMV-aligned policies, Governance, Advocacy and Information, Coordination, and Reporting.

For other areas, it will work through and promote those other African institutions with expertise and experience to become Africa's Centres of excellence in the areas of their respective mandates.

A number of considerations dictate the sharing of services as appropriate for carrying out part of the Centre's Mission.

1. The transformative role envisaged in the AMV, call for interventions in almost the full range of economic and social development fields within a country, sub region, and across the continent. No single entity can possess all the expertise required. Hence the Centre must operate closely with Partners and others, guided by clearly defined roles in pursuit of the AMV goals.
2. The Regional Economic Commissions (RECs) are the institutions of the AU to address cross-country issues in the 5 sub-regions of Africa. Since some of the key goals of the AMV are achievable only at the sub regional level, regional collaboration will be essential for success. Furthermore, noting that with a few exceptions, the market size and resource endowment are inadequate to capture

the entire value chain of most minerals, sub regional collaboration will be vital. This is the role of RECs.

3. There are multiple actors in the minerals sector in the continent and covering all areas. These will continue to operate, following their agendas. However, some do not have the political authority at the continental level that AMDC possesses – at least not for minerals. This direct political link is a comparative advantage that can be leveraged to encourage AMV alignment of such partners' activities.
4. Reporting arrangements are potentially powerful tools promoting actions related to Goals, as has been shown in the case of the MDGs and more so the SDGs. The Centre should therefore be known to have a responsibility, reporting to the Summit, through the AUC, on progress towards the goals and objectives of the Vision. Moreover, the performance of the institution will be reported on regularly including independent evaluations at regular intervals.

Two implications for the Business model should be highlighted:

1. **It must forge partnerships.** Relying on the Convening authority of the AU and its political clout, it must be the rallying point for the AMV: it must rely on other partners to advance some of the agenda in their respective fields. Very early it must develop:
 - a. The capacity to be nimble and to respond quickly to identified needs;
 - b. Capacity to create effective project teams representing a wide range of expertise; and
 - c. The ability to nurture current networks and create new ones to facilitate the sharing.
2. **It must be the repository of knowledge on AMV related issues.** A lesson learnt during the project phase was that dissemination of new products and experiences was vital for spreading the benefits of the AMV. Relatedly, it must be the thought-leader for effective and innovative use of Africa's minerals resources, drawing on the best talents in the continent and creating the space for generating knowledge products.

The AMV is a case where supply creates its own demand. In other words, advocating AMV objectives and related principles in turn creates a demand for AMV products. As observed during the Project phase, the AMV highlighted the NEED; after disseminating information on its inherent possibilities, then the demand for support began to emerge.

The implications for funding are described in Chapter 5. The difficulties inherent in designing a model that depends on sizeable annual payments from member states are well known and borne out of the experiences of many African institutions. It is therefore a lean institution to start with that can mobilise resources for core Staff and programmes.

The rest should be extra-budgetary and a function of the success in mobilizing extra budgetary resources (see chapter 5).

To summarize, the business model is a hybrid of direct service delivery, and shared services through partnerships. The Centre itself will deliver direct services in a number of areas. For other areas, it will forge partnerships with relevant institutions – preferably African but not exclusively so. The precise nature of the partnership will vary according to the Partner.

Chapter 4. Organizational Structure

Beginning with the governance structure already specified in the Statutes, this chapter describes the functions of the Centre, its internal organization and who will implement the work of the Centre. It lists the various positions and levels, identifying the minimum needed for the first phase of two years when the Centre gets into full operations.

The Centre will be set up as a “flat organization”, staffed primarily by senior Specialists and possessing minimum bureaucracy. Such a structure responds to the need for a streamlined but efficient entity, with minimum overheads so as to keep the budget affordable. More importantly each Senior Specialist, will require minimum supervision and capable of providing high-level advice to national authorities. Effective coordination and quality assurance will be a key part of the Operating Procedures in order to avoid a “silos” effect.

4.1 Governance

Articles 9 – 13 inclusive, of the Statutes of the Centre stipulate the Governance structure of the Centre the Statutes specify three organs for the Centre:

- i. The Conference of State Parties – the supreme Governance body:
- ii. The Minerals Advisory Board (MAB) – as formulated, the MAB performs both supervisory and technical functions including recommending the budget for approval. To remain faithful to the approved Statutes, the MAB should set up a Sub Committee responsible for technical advice to the Centre, but with a mandate to co-opt specialists. See Annex 4. The Technical Sub Committee will handle all that is technical in nature so that the MAB proper will supervise management on strategic issues. The appointment of external auditors should be the responsibility of the MAB rather than the Conference of State Parties (see Annex 3). The membership of the Technical Sub Committee should include the Strategic Partners plus a representative of donors contributing to the core budget, but without voting rights

- iii. The Secretariat – implements the programmes of the Centre (the Centre and the Secretariat seem to be used interchangeably in the Statutes. To avoid confusion the word secretariat will be replaced by Centre)

4.2 Functions

The Statutes define 3 sets of functions. These are presented below, followed by the Objectives clustered into 5 areas; for consistency and to ensure coherence in the operations of the Centre.

The Centre will:

4.2.1 **Support member states develop and manage the minerals sector.**

- A. To do so requires the delivery of advisory services as determined by the Objectives in the Statutes Evaluation of the project phase emphasizes the critical role of Partnerships for the success of the Centre. Annex 5 outlines specific Partnerships to embark on as a matter of priority. Hence, direct delivery of services and products will focus on those areas for which the Centre has comparative advantage, while retaining high level capacity to leverage the work of partners. The preparatory conceptual work leading to the AMV adoption, plus the considerable studies and experimentation done during the project phase place the Centre in an unassailable position as the only institution that has the experience to advise on the full ramifications of AMV aligned policies. This therefore is the core function of the Centre. *Article 3 - 1.*
- B. Coordinate/Liaise with multiple actors with a view to promote actions, programmes and reforms in alignment with the AMV. *Art 3 and Art 16*
- C. The promotion of minerals-led industrialization and of ASM are two tasks listed in the Objectives that require emphases because of the extensive ramifications for structural transformation and direct effects on livelihoods of the poor.

4.2.2 **Support the Improvement of geological and mineral information, including the production, management and dissemination of geo data management.**

Success will require partnerships and coordination/liaison with multiple actors with a view to promote actions, programmes and reforms in alignment with AMV. *Art 3*

4.2.3 **Be the repository of knowledge on AMV and develop capacity in relevant fields (Art 4, S-3 (a), (c), (h), (l)).**

This function will also include tasks related to Advocacy for the goals and principles of the AMV (Involves representation, dissemination, and advocacy of the underlying principles and goals of the AMV, particularly in the context of Agenda 2063) *Art 4 Sec 3 (g), (i), (j)*

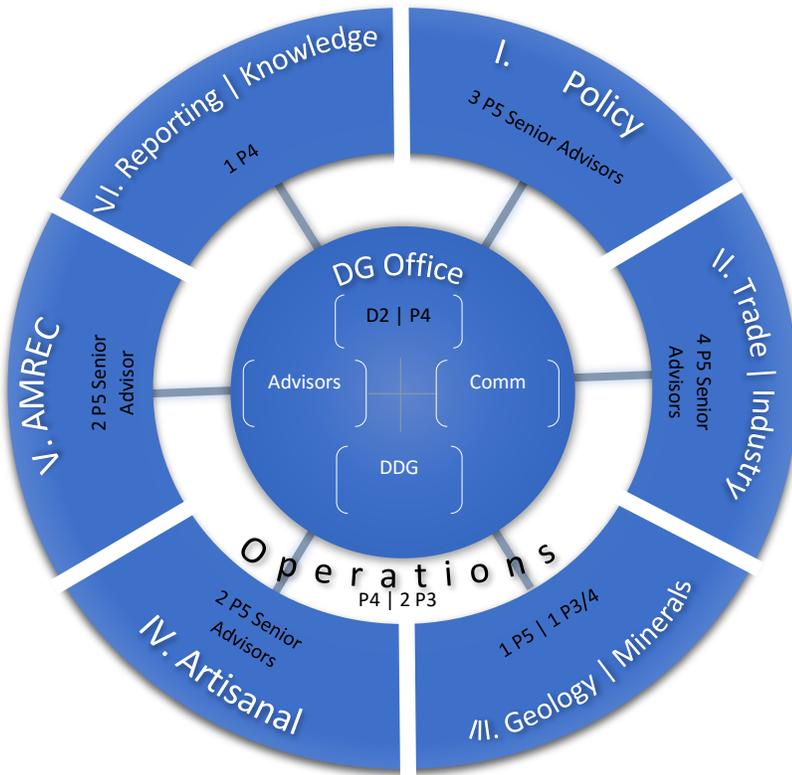


Figure 3 shows the Organization chart for the Centre and the staff required to perform the tasks related to the above functions.

Figure 9 Organisational chart

4.3 Explanatory notes.

The Structure is presented in the form of a wheel with the Hub and six spokes.

The core of the Organisation is the **Hub**; the DG's office and includes the following:
The DG whose tenure shall be as decided by the Conference of State Parties as recommended by the MAB + 1 PA

1 Legal Adviser at the P4 level

1 Internal Auditor at the P4 level

1 Communications Adviser at the P4 level + 1 IT officer and 1 Press Officer (Local)

2 Local officers (1 Executive officer and 1 General Service)

1 Deputy – based on availability; but note that he/she. deputizes for the DG, supervises all workstreams, and handles Governance issues. The position should be reviewed after the first two years.

Sub - Total 5 Professionals plus 5 Local Professionals

Operations. The inner circle in white represents the Operations team, surrounding the Hub and supporting the six parts of the outer wheel. This will require a Head of Operations P-4, and 2 P-3 (Finance and HR) officers plus 2 local officers

Sub Total 3 Professional officers plus 2 Local officers

The outer wheel – blue – represents the 6 workstreams

I Policy. 3 Senior Specialists at the P-5 level. The first is responsible for Mining policies; country level equivalent, including at the sub regional level; the second will deal with Governance issues; and the third, all issues related to licensing, contracts and legal frameworks.

Sub Total = 3 Professionals

II Trade and Industrialization. 4 Senior Specialists in Industrialization and Trade at the P 5 level. The first will focus on Minerals for industrialization issues (type and location of minerals-based industries – cross country issues); while the second will deal with Linkages and Value Chain issues (how to optimize benefits from the extraction process in the short run while planning for maximizing gains for overall development in the long run).The third and fourth will be specialists(Research Officers) at the P-4 levels, in trade (2 P-5 and 2 P-4)

Sub Total 4 Professionals

III. Geological and Mineral Information.

This is a critical area for both the AMV and general economic development. However, the Centre must work through partnerships to share in the delivery of services to member States. Essentially the Centre will develop working relations with relevant African Institutions. Africa (GSAF) etc. 1 Senior Specialist (P-5) and 1 Specialist (P-4) are proposed.

Sub Total = 2 Professionals

IV Artisanal and Small Mines

To be staffed by 1 Senior Specialist at the P-5 level and 1 Specialist at P4. The better management of ASMs is a complex problem facing all minerals-dependent countries but hardly addressed at the sub regional level. The Centre will be well placed to focus on the regional dimension, plus sufficient consultancy resources to generate knowledge products at the national level.

Sub Total = 2 Professionals – 1 P-5 and 1 P-4

V AMREC

1 Senior Specialist at the P-5 level, and 1 Specialist at the P-4 level. Their main task will be to prepare the full operationalization of AMREC

Sub-Total : 2 professionals:

VI Reporting

A professional is required to track developments in the external environment as well as report on progress made by the Centre In achieving the targets set.

Sub total = 1 Professional at the P-4 level

Grand Total core Professional staff (excl support staff who are “local” professionals)
= 22.

For Phase 1 (the first 2 years) - the number of staff can be limited to 10 Professionals as follows:

1 DG

7 Snr Specialists (3 - Policy, 1 - Geosciences, 1 for ASM, 1 for industrialisation, 1 for AMREC)

1 Operations (Finance/Admin) Adviser

1 Legal Adviser

Total 10 Professionals

Option for immediate “holding operation” or transition phase.

1DG

1Policy

1 Programme Officer

1 Legal

Non-Prof

1 Operations

1 finance

1 Executive Assistant

Total 4 Professionals 3 Local Officers

4.4 Staff Remuneration and recruitment

The Centre is to provide strategic advice and support to member states directly and in collaboration with others. Staff should therefore be of the highest caliber in their respective fields. To attract the best, remuneration levels must be competitive with international organizations operating in Africa, and to attract the best African candidates. Adopting the rates of remuneration for the African Development Bank are recommended. As a matter of policy, staff recruitment should target the best rather than candidates meeting minimum qualifications. Best practices in recruitment used by successful companies should be used.

Chapter 5. Implementation arrangements

It is useful to reiterate that the AMV is a continental vision of actions that essentially must take place at the national level even if not always originating from there. However, some of these are restricted to measures within the boundaries of each state while others must cross national frontiers and be regional in scope, and others still cut across more than two sub regions and affect the entire continent. All the goals will be pursued at the three levels of implementation; national, regional, continental.

1. National. At this level, Government leadership is essential for success. The Centre will establish footprints in all Member States as a matter of priority. It is important to obtain the support of CSOs at an early stage in engagement with a member

state. They can also serve as champions for the AMV at the local and community levels. In any case an Action Plan per country is an advisable option for all countries. Equally, the private sector and development partners need to be incorporated in the

2. Regional. This level is key for member states to move out of the Extractive sector into the wider minerals sector. It is also more difficult given the slow expansion in regional collaboration. Since RECs have the mandate for such efforts, the Centre will hold extensive discussions with the leadership in RECs to find a pathway that will not be inhibited by relatively lower priorities assigned to such programmes..
3. Continental. At this level, the key actors are RECs, development partners: bilateral, and multinational on the one hand, and the private sector on the other. There are also key institutions such as NEPAD and specialist organisations that address one or more dimensions of the problems being addressed by the Vision. Similar to the case of member states, scoping visits to each REC and key development will have to be undertaken early on in the Centre's new life. The purpose will be to agree on a modus operandum per REC or partner to be followed up later with operations plans per annum or planning period. Ideally MOUs can be formulated to define precisely the respective roles and responsibilities.
4. Related to the continental implementation arrangements is the role of representation for the AMV. This proved to be an important role during the project phase and can be quite a burden on the leadership. Staffing by senior specialists will help reduce the burden as other staff can represent the Centre and the AMV.

At the project phase, three institutions were originally identified as Strategic; the AUC AfDB, ECA and the UNDP was added later, due to their respective mandates in supporting development in member states. They produce relevant knowledge products, interact with key stakeholders such as the Private sector and Civil Society, have permanent field presence that go beyond the minerals sector and also have resources that can be brought to bear on the work of the Centre. A similar arrangement will be valuable and should include the DG of the Centre to discuss strategy. This is not to interfere with the Governance structure set up in the Statutes but to ensure the effectiveness of their collaboration.

In conclusion, once the DG is appointed an Action Plan for the Centre covering the two-year period should be prepared taking into account the various factors listed above.

Chapter 6. Reporting, knowledge creation and follow up.

Normally, the system of monitoring, reporting and evaluation should deal with both the operations of the Centre and the progress towards realizing the outcomes of the Vision – the *raison d'être* of the Centre. Given the prospects of events in the global economy having a major impact on the extent of success in pursuing the Vision, it is essential to report on trends and changes taking place in the external environment that may call for adjustment of the pathways being followed towards that Vision. Hence the Centre will set

up two separate systems of monitoring and reporting; the first will focus on the Centre's operations with reports to ascertain the extent to which targets set are being met - efficiency. Progress indicators and qualitative assessments will be based on the core Results Framework found in Annex 1.

Naturally the RF will be sufficiently expanded to the output / activities/ inputs level with appropriate success indicators. This system will also serve as an Accountability and transparency tool.

The second report (or second part of a single report) will show progress by member states through RECs, and the former encouraged to report biennially on achievements en route to the AMV. An entirely new system of reporting to cover those activities delivered through shared actions, is not advocated but rather that the Partner's system be used or modified for the purpose of the AMV aligned activity so as to meet the Centre's requirements.

A major challenge to be confronted is how to maintain quality assurance for projects and activities "outsourced" to or agreed to be performed by Partners. Very early on as the Centre embarks on full operation, it will set up a robust system of monitoring as part of the MoU defining the partnership agreement.

In parallel will be the system of constant scanning of the global economy to trace and follow events related to the links between industrialization and minerals in general as related to Africa. This will form part of the knowledge creation function of the Centre. All staff will be responsible for submitting short quarterly reports on such developments and trends from the lenses of their workstreams, to be collated by the Deputy and submitted to the Assembly of Heads of States through the Conference of State Parties. The activities of the Centre will be subject to an independent evaluation every five years.

Chapter 7. Financing Arrangements

The change in the development trajectory that would result in the achievement of the AMV would yield very high returns in the long run to member states. However, unless resources are invested now, the gains would elude the continent. This core argument for financing AMDC will be supplemented by the efficient delivery of services seen to respond to needs of member states and development partners. In addition, the design of the Centre, its business model and organizational structure all provide the persuasive case for support especially in its initial phases.

Fortunately, the organization has five years of experience as a project to learn from. Nevertheless, budget proposals for the Centre must be realistic. Hence innovative measures and a combination of funding mechanisms will have to be adopted to ensure the Centre functions effectively, while quickly building up a reputation for quality products, efficiency and financial prudence. Upon commencement of operations the Centre will develop strong financial management systems, with regular reporting in order to inspire confidence for resource mobilization.

Four funding mechanisms will be set up:

1. Core funding. This will consist of member states' contribution to the budget. Here the assessed amount will be kept to the minimum required for the Centre to deliver effectively. Working on the basis that 15 signatories are needed to ratify the Centre, the core budget will consist of mandatory contributions from 15 member states (considered as the minimum revenue). The criteria for country assessment will be agreed upon by the Conference of Member States. Contributions above that minimum, will go to the annual budget
2. An Africa Minerals Development Trust Fund should be created as soon as the Statutes are ratified. The fund manager will be an organisation with experience in managing such funds on behalf of a project or Client. The key criteria will be credibility (to inspire confidence of donors, flexibility (to be able to respond quickly but retaining strong controls to ensure financial prudence) and accountability. The modalities of its operation and funding should be developed.
3. Parallel funding. This applies to situations where; legal or regulatory restrictions prevent donor funds being managed by a third party or in this case by AMDC. A MOU will be signed for certain budget lines in a project to be taken over by a Partner. The project or programme will be managed by the Senior Specialist or equivalent, and the service provider will be answerable to him or her. The AMDC will act as liaison or focal points for such projects.
4. Proceeds for services rendered. The Centre is not a profit-making organisation. Nevertheless, in time, certain services may be provided at cost to member states and third parties as is done by the ATU. An example is where a development partner may wish to pay for a workshop organised for the benefit of the CSOs on subjects for which the Centre has a comparative advantage e.g. on AMV compliant mineral policies. Here the Centre will request for full payment of costs for its own services. For accounting purposes, revenues from such activities should go through the Trust Fund.

7.1 Resource mobilisation.

Operating the Centre will require adequate resources to deliver the products and services needed by member states. Just as the tasks require extensive collaboration with multiple actors, so also will the funding requirements go beyond the core budget. Complementary resources will have to be mobilized to allow the Centre to respond to demands of member states. Hence, resource mobilization will be a constant item in the Workplan of the Centre. For future sustainability of the Centre, the senior management should work towards reducing dependence on contribution of member states.

Final note.

This Business Plan is intended to serve as a guide for the new Centre, rather than a straitjacket for action. It contains the key elements for the formulation of a full Operations

plan once the minimum staffing requirement is in place. The contents reiterate the importance of changing the narrative that has dictated the management of one of the continent's richest assets. To achieve this major change required by the African Mining Vision calls for a complete rethink of the way the sector has been perceived - as limited to its extractive phase – to embracing the full value chain of the Minerals industry. Such a change demands radical and innovative alterations to past concepts and practices – a formidable task. The adoption of the AMV is itself a manifestation of solid commitment at the highest political levels in the continent. Success will depend on the Commitment being sustained and even reinforced, in order to guarantee that the new pathways being charted in the continent's development journey are followed consistently.

Annex 1 – Results Framework

Table 1 Results Framework limited to Outcomes level with key Outputs only. (This indicative Framework will have to be expanded by the inclusion of timeframe, specific targets, inputs and activities).

Goal 1 AMV Aligned national and sub regional minerals policy				
Objectives	Outcomes	Outputs (selected)	Strategy and assumptions	Success indic.at Outcome level
(1.1) All mineral-dependent countries and regional groupings have robust and coherent regulatory framework for licensing, exploration, mining and taxation that are consistent with the Vision.	(1.1.1) Mining Policies and Practices of member states and regional groups reflect principles and contents of the AMV	(1.1.1.a) All mineral-dependent countries possess new or revised mineral polices/strategies that are consistent with AMV principles	The strategy is for the Centre to promote the adoption of policies that are consistent with AMV principles at the national and regional level. This task requires direct delivery of advice. It can be done through advisory services to accompany the formulation process, workshops at both the national and sub regional levels. The CMV Guidebook and Handbook are useful instruments to support the process. The risks are that other players (donors) advocate,	(1.1.1.1) Revised or new mining policies are peer reviewed as consistent with AMV principles
		(1.1.1.b) All five sub regions of the AU with newly formulated or revised Consistent with AMV principles mining policies.		

		(1.1.1.c) Licensing procedures fully respect community rights, and also recognise the changing nature of mining due to advanced technologies.	the traditional type of Mining Policy. Another risk is that the sub regional policies are not generated quickly enough to provide the umbrella for national policies. The Centre must therefore play an advocacy role reinforced by MOUs or Exchange of Letters.	
		(1.1.1.d) Reports on the impact of new technologies, climate change, geopolitics etc on key African minerals including potential responsive strategies	With respect to licensing, the changes are best advocated during the policy formulation /revision process. As regards new technology, studies undertaken must be given wide publicity through workshops and local seminars.	
(1.2) Improved sector Governance	(1.2.1) Enhanced participation in policy reforms and decision-making esp. for community groups (1-C-i) Enhanced transparency and accountability	(1.2.1.a) adoption of rules and regulations that include community involvement in policy making including licensing. (1-B-i-a) system for regular reporting and disclosure of all activities in sector.	AMGF to be used as a tool for monitoring implementation of AMV	(1.2.1.1) Human rights Commission reports improvement in Governance of the industry in its yearly reports (1.2.1.2) Accountability indicators and references in Auditor General Reports

<p>(1.3) Contractual terms for extraction, exports and processing must be harmonised at the sub regional, regional and continental level</p>	<p>(1.3.1) Harmonized policies across subregions or minerals</p> <p>(1-C-ii)</p>	<p>(1.3.1.a) Templates for policy harmonization by minerals and /or by countries.</p> <p>(1-B-i-b) Model mining contracts formulated</p> <p>(1-B-i-c) Successfully negotiated Consistent with AMV principles Agreements</p>	<p>Harmonization by mineral type is easier and more practicable than by country. Again, a sub-regional approach led by the REC is the better option. Here is a case for partnership with RECs. The Centre's role is better focused on facilitating than on delivering the service.</p> <p>The risk is that the subject is not inserted into the approved agenda of the REC thus leaving out funding for AMDC activities.</p> <p>For Contract Negotiations, this should be outsourced to third parties but advocating that negotiations include AMV principles. Capacity building should be a continuous process.</p>	<p>(1.3.1.1)New or revised mining agreements contain provisions of model contracts</p> <p>(1.3.1.2)Government audited accounts focus on minerals revenues(royalties/taxes and other fiscal obligations</p>
<p>(1.4) Efficient recovery and management of Mineral Revenues</p>	<p>(1.4.1)Prudent and optimal use of mineral revenues to produce a stream of income into the future</p> <p>(1.4.2) minimise revenue</p>	<p>(1.4.1.a) participating member states adopt the Centre's recommendations relating to revenue management.</p> <p>(1.4.1.b) reports from joint</p>	<p>The key here is to help to setup regime for isolating disbursement on consumption and investments from resource rents, and</p>	<p>(1.4.1.1) Annual Govt audit reports/ forensic reports at least once every five years</p>

	leakages	revenue committees	stabilise against comd cycles. Set up systems for the reduction of losses through transfer pricing and other accounting tactics.	
(1.5) Coordinate and oversee the implementation of the AMV	(1.5.1) AMV principles increasingly applied in management of the sector	(1.5.1.a) Regular structured reports on developments in the global economy of import to Africa's Minerals.	A three-part report would cover AMDC activities, progress towards AMV in member states and in RECs, and the third part will summarise global developments of import to the AMV	(1.5.1.1)A more diversified economy
	(1.5.2) AMV kept abreast with developments at global level			(1.5.2.1)Biennial report on progress towards achieving AMV objectives
Goal 2 Minerals driven Industrialization in the African continent (Objective B and F).				
(2.1)) Enhance industrialization and transformational development of Africa using mineral resources. (Related to Statute Objectives B, C, and F)	(2.1.1) The minerals sector contributes significantly to Africa's industrial sector.	(2.1.1.a) Industrialisation policies consistent with the AMV at national and sub regional levels	Consistent with the ToC, here the Centre must leverage or promote mandated entities, and in collaboration with the private sector to press for the outputs. These include RECs, IFC, the AfDB, WB etc. It involves capacity to influence policy level work in other organisations rather than try to deliver directly. The Technical Advisory Group being proposed will be vital for success.	(2.1.1.1) Number of new minerals based industry set up within the continent that are consistent with AMV principles
	(2.1.2) Multiple linkages between the minerals sector and rest of the economy	(2.1.2.a)) Studies for processing plants and inputs production		(2.1.2.1)Implementation of linkages studies, reports and recommendations at national and sub regional levels
	(2.1.3 Cross-country linkages that retain optimal value chain within Africa	(2.1.2.b) Value-chain studies showing potential for linkages at national level		(2.1.2.2)Percentage of contribution of minerals-based industry to GDP and Employment.

		(2.1.3.a) Value-chain studies showing potential for linkages at sub regional level		(2.1.3.1) Number of new investments in enterprises related to minerals sector
(2.2) promote national and inter country trade and linkages with other sectors	(2.2.1) Minerals sector fully integrated within national economy through linkages) (2.2.2) Minerals sector in member states supplying inputs to other countries and vice versa (2-B-iii) Intra-African trade augmented by minerals and associated products	(2.2.1.a) Studies on potential linkages by minerals type and by country and by sub-region.	Advisable to seek private sector interventions during formulation and review of industrialization strategy The role of RECs and NEPAD are key as leaders to encourage private sector to invest with or without Government participation.	(2.2.1.1) Number of new industries supplying and being supplied by minerals sector at the country and inter country levels
		(2.2.2.a) Identification of key minerals with highest potential for regional links and for relocation of value chain to Africa		
		(2.2.2.b) Trade protocols adopted that allow free trade and investment in minerals sector among member state		
Goal 3. Enhanced geological and mining information systems (central to the Main Objective and incorporating part of Objective A).				
(3.1) Improve the (support) acquisition, harmonisation, accessibility and quality of geo-data to facilitate governance and	(3.1.1) Harmonised geo-data and geoscience policy at national and regional levels	(3.1.1.a) Geodata policy formulated and adopted at continental and national levels Robust GMI systems developed at the national	This requires synergetic approaches between national, regional, continental and international partner led initiatives.	(3.1.1.1)Number of African States using geo-data as a tool for governance and investment in the mineral sector

investment in the mining sector and economic development		and regional levels		
	(3.1.2) Improved capacity of Geological Survey Authorities allowing full access to geo-data	(3.1.2.a) Strengthened geo-data infrastructure	Encourage Member States to dedicate domestic resources towards strengthening the Geological Survey Authorities	Systems in place for common use of Geodata by other sectors
Goal 4 ASM Integrate ASM formally into national and regional economies and improve livelihoods.				
Geo-data for landuse planning, natural disaster management and infrastructure development				
(4.1) Improved livelihoods and productivity and full integration of ASM into the formal sector	(4.1.1) Improved and sustainable livelihood in a sustainable environmentally and socially responsible manner	(4.1.1.a) ASM Policies and Legal Framework based on comprehensive diagnostic studies (4-A-i-b) Innovative strategies and technologies adopted and implemented at country and inter country levels	Use of existing and new studies to identify potential gaps Seek innovative solutions that aim at addressing informality in the mining sub-sector of the economy,	(4.1.1.1) % of population working informally in the mining sector. Improved livelihoods in ASM
(4.2) Better manage and reduce adverse health safety, social and environmental effects of ASM	(4.2.1) Reduced negative environmental safety, and social and health impacts Improved welfare of ASMs	(4.2.1.a) Community based initiatives/approaches for ASM implemented	Emphasis on community based measures to combat environmental consequences. Seek technological solutions that advance climate smart mining	(4.2.1.1) Measures to address environmental degradation due to mining activities

Goal 5 AMREC-PARC				
<p>(5.1) Sustainable and integrated management of Africa's mineral and energy resources, business process innovation and efficient capital resources allocation</p>	<p>(5.1.1) enhanced resource classification and management as envisaged by Africa Minerals and Energy Resource Classification and Management (AMREC) and other Africa based classification initiatives well as accessible regional maps</p> <p>5.1.2 Strengthened capacity for business process development and management across the value chain to increased right investment in resource development projects</p> <p>5.1.3) Improved capability of Internationally recognized Competent Persons (Pan African Reporting Code - PARC)</p> <p>5.1.4) improve the use of PARC by financial institution</p>	<p>(5.1.1.a) AMREC Comprehensive initiatives to promote the adoption an African resource classification</p> <p>5.1.2.a) Guidelines for environmental management and business processes such as exploration, contract negotiations and training</p> <p>5.1,3.a) Training programme and certification of competent professionals</p> <p>Promotion of the use of PAR by stock exchanges within the region.</p>	<p>Put in place outreach strategies for the uptake and sustainability of AMREC</p> <p>Engagement with Governments and private companies</p> <p>Develop training and certification processes for variety of professionals in mineral industry in Africa</p> <p>Engagement with stock exchanges and documentation of the use of PARC</p> <p>.</p>	<p>Number of African States applying AMEREC-PARC in the mineral sector</p> <p>5.1.2.1) Number of private companies adopting AMRE-PARC guidelines for business process</p> <p>5.1.3.1) Number of professionals accredited and registered as Competent Persons</p> <p>Number of SC using PARC and report tracking performance</p>

Monitoring and reporting.				
(6.1) Ensuring AMV in step with developments in the global minerals sector	(6.1) Biennial report on progress towards achieving the AMV	(2.1.1) Annual report to the AU Commissioner for submission to the Assembly/	The strategy is to provide policy makers with the information on current trends in the minerals sector at the global level in order to make adjustments to the AMV as appropriate	
6.2 Monitoring system for the operations of the Centre	(6.2.1) An effective and efficient Centre	(6.2.1.a) Put in place a monitoring and reporting system for the Centre's operations	A standard monitoring and reporting system should be set up in year one. The strategy is to set up a system that imposes very little additional burden to the operations of the Centre	The M&E system set up generates the annual reports within the first two months of the new budget year.

Annex II – Indicative Budget for 5 years

(Draft for consultation with HR and Legal Units in the AUC/ADB)

Number of Hires	Job Title	Grade	Years of Experience	Salary Band in UA Per Annum			Budget in US\$		
				Min	Mid	Max	Min	Mid	Max
1	Director General	D	10	153,393	180,462	207,531	\$ 210,474	\$ 247,616	\$ 284,757
1	Deputy Director General	P 5	10	143,601	168,943	194,284	\$ 197,038	\$ 231,810	\$ 266,581
10	Senior Specialist	P5	8-9	118,145	138,994	159,843	\$ 1,621,091	\$ 1,907,164	\$ 2,193,238
9	Specialist	P	8-9	111,222	130,849	150,477	\$ 1,373,489	\$ 1,615,865	\$ 1,858,253
1	Principal Officer	P4	6	76,624	95,779	114,935	\$ 105,137	\$ 131,420	\$ 157,705
							\$ 3,507,229	\$ 4,133,875	\$ 4,760,533

1.37212 SDR Rate Last Updated: 2019-08-18 22:36 UTC

SN	ACTIVITY DESCRIPTION	Unit cost (US\$,000)	Number/Quantity	COST ESTIMATES (US\$,000)					Total
				Year 1	Year 2	Year 3	Year 4	Year 5	

Sub-total									36,750.00
3	Programme support, reporting and outreach								
3.1	Communication and advocacy			750	750	750	750	750	3750
3.2	Monitoring, evaluation and reporting			250	250	250	250	250	950
3.3	Annual Conference of Stakeholders	120	5	120	120	120	120	120	600
3.4	Advisory Board meetings and activities	50	10	100	100	100	100	100	500
3.5		50	5	50	50	50	50	50	250
3.6	Contingency 5%								302.5
Sub-total									6352.5
GRAND TOTAL									43769.14

Annex 3 – Profiles of Key Personnel

1. The Director General of the Centre⁵⁰

The duties of the Director General of the Centre are detailed in the Statutes of the AMDC. These duties will not be reproduced here but it is important to point out that among other duties the director is expected to:

- Participate in the deliberations of the Conference of the Parties (in ex officio capacity) and the Mineral Advisory Board (as a non-voting member) and Board of Directors (as a voting member and executive secretary);
- Take ultimate responsibility for the finances of the Centre;
- Represent the Centre and defend its interests;
- Promote the development of programmes projects and initiatives;
- Oversee the administration and financial management of the centre;
- Appoint staff and terminate contracts of appointments;
- Organize meetings and undertake studies;
- Make recommendations to improve the centre's operational efficiency.

These duties are not only extensive, they also seem to call for someone with the *diplomatic savvy and gravitas* to credibly represent the interests of the Centre at the level of government ministers, prime ministers, heads of potential collaborating agencies, and other parties on the continent and abroad; has the *management skills* to ensure the smooth running of the Centre; and the *technical background* to be directly involved in the hiring of staff, organization of meetings and determination of studies to be undertaken. It is the view of this consultant that both the burden and the range of skills required better describe three persons rather than one.

The remuneration level proposed is equivalent to a Commissioner level in the AUC hierarchy.

An effective Director General, particularly for an institution charged with coordination and facilitation at the level of governments, regional agencies and private sector entities, will need to have a background that gives him or her credibility at the highest levels and the management skills that allow him/her to direct the activities of the centre at a strategic level. Raising and maintaining the profile of the Centre will be Director General's most

⁵⁰ This section is partly drawn from the report of the UNDP consultancy on

critical task. Though such a director should have more than a passing knowledge of what the Centre does, and what skills its employees are required to possess, requiring a significant technical - rather than general background in the areas of minerals extraction or policy will both distract from the more necessary management and political skills for the role itself. The same is true for the financial management of the Centre. While the Director General should reasonably be considered the Chief Financial Officer of the Centre, the actual management of the Centre's finances should be assigned to a highly qualified and experienced professional who has the capacity and time to **develop** and **oversee** a credible system for financial management for the Centre.

The Director General more realistically must be someone with political, diplomatic or administrative background at the highest level within or outside the continent. The most important ingredient in the CV should be a proven track record of success in managing a complex international entity. The technical skills should reside with the Senior Specialists. When resources permit, a Deputy Director (Technical) who would also function as coordinator of the workstreams may be appointed. In this case field experience may be less important. The financial management skills should properly reside with a (Finance and Administration) who would also serve as head of the finance section of the Centre.

2. Senior Specialists.

All work streams should be led by a Senior Specialist. This must be a technician with at least 10 – 15 years of experience in the profession. The candidate will be responsible for results and require minimum supervision. In the first phase of operations they will rely on regular coordination meetings at least bi-monthly and be guided strictly by an Operations plan in order to ensure synergy and avoid a silos effect. They will also have to be able to supervise consultants or other specialists who may be seconded to the organisation from time to time. A Director level responsibility is essential because of the role of advising member states at a strategic and senior level.

The remuneration level proposed is equal to that of a Director in the AU hierarchy.

3. Other Staff.

The Legal and Communications Advisers must be dynamic middle level staff capable of handling large volumes and high quality of work. Experience in delivering the services and products envisaged in the Corporate Strategy is essential. 5 – 10 years proven track record in the respective fields. This level is lower than senior specialists because of the level of responsibility – they are responsible primarily for results that are internal to the Centre, and report directly to the Director General

The Head of Operations is in the category of Other staff.

4. National Officers.

Before the Centre becomes fully operational, national officers – professionals but without the benefits of the Specialists and other Core staff – should be appointed for a short terms to deal with issues relating to the day-to-day operations of the office. This includes; legal services, procurement of basic items, establishing initial relations with suppliers, medical services etc all of which require knowledge of local practices. It is advisable to obtain the short-term secondment of the head of operations of a Specialised Agency to help set up the Centre's operations. The advantage of using staff from another SA, is the experience of operating a Centre in host country that will be vital in the early stages of the Centre.



AFRICAN MINERAL AND ENERGY RESOURCES CLASSIFICATION
AND MANAGEMENT SYSTEM
(AMREC)



AFRICAN MINERAL AND ENERGY RESOURCES CLASSIFICATION AND MANAGEMENT SYSTEM (AMREC)

Part A–Overview and context

Part B–The AMREC System

Part C–The PARC Code

Part D–Administration of AMREC and PARC

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LIST OF ABBREVIATIONS

API	American Petroleum Institute
AMDC	African Mineral Development Centre
AMV	Africa Mining Vision
AU	African Union
AUC	African Union Commission
AWG	African Union-AMREC Working Group
CMV	Country Mining Vision
CP	Competent Person
CPD	Continuous Professional Development

GMIS	Geological and Mineral Information System
GSOs	Geological Survey Organizations
MDGs	Millennium Development Goals
PARC	Pan-African Resource Reporting Code
RECs	Regional Economic Communities
SDGs	Sustainable Development Goals
TCG	Technical Coordination Group
UNECA	United Nations Economic Commission for Africa
UNECE	United Nations Economic Commission for Europe
UNFC	United Nations Framework Classification for Resources
UNRMS	United Nations Resource Management System
AMREC	African Mineral and Energy Resources Classification and Management System

ACKNOWLEDGEMENTS

- African Union Commission (AUC) for supporting and facilitating the development of the document.
- African Minerals Development Centre (AMDC) under the United Nations Economic Commission for Africa (UNECA) for initiating the project in August 2017.
- United Nations Economic Commission for Europe (UNECE) for providing the technical support.
- The Expert Group on Resource Management (EGRM) and its Technical Advisory Group (TAG) for reviewing the document, in particular Mr. Claudio Virus (Alberta Energy Regulator, Canada).
- Members of the AMREC Technical Working Group responsible for developing the document include:
 - Mr. Frank Mugenyi (African union Commission)
 - Mr. Paul Msoma (African Union Commission)
 - Mr. Tunde M. Arisekola (Nigeria & Technical Coordinator)
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 - Prof. Olugbenga Okunlola (Geological Society of Africa)
 - Mr. Alex Ndubusi Nwegbu (Organisation of African Geological Surveys)
 - Prof. Aberra Mogessie (Africa Diaspora & University of Graz)
 - Mr. Felix Bob Ocitti (Uganda)
 - Prof. El Hassan Sayouty (Morocco)
 - Mr. Abdul Osman Kenan (South Africa)
 - Mr. Cassius Chiwambo (Malawi)
 - Mrs. Anna Karren Nguno (Namibia)
 - Prof. Samuel Boakye Dampare (Ghana)
 - Prof. Theophile Ndougsa Mbarga (Cameroon)
 - Mr. Dennis Amos Mwalongo (Tanzania)
 - Mr. Mohamed Helmy Taha Elsayed (Egypt)
 - Mr. Francois Kazadi Kabuya (Democratic Republic of the Congo)
 - Mrs. Dinamalala Julia Ranaivosoaona (Madagascar)
 - Dr. Abdoul Azizi Ndiyaye (Senegal)
 - Ms. Cristelle Nikoh Mefeugend (Cameroon)
 - Dr. Maideyi Lydia Meck (Zimbabwe)
 - Ms. Imelda Marques (Mozambique)
 - Mr. Harikrishnan Tulsidas (UNFC Expert, UNECE)
 - Dr. Julian Hilton (UNFC Expert)

PART A - OVERVIEW AND CONTEXT

1. Introduction

African Mineral and Energy Resources Classification and Management System (AMREC) is a continental system for management of Africa's mineral and energy resources.

The AMREC is based on United Nations Framework Classification for Resources (UNFC) Principles, Generic Specifications and Guidelines and is aligned to Africa Mining Vision (AMV) and the Sustainable Development Goals (SDGs). Adapting to national or local needs, the AMREC provides the specifications and guidelines required for sustainable development of Africa's mineral and energy resources.

The objective of the document is to provide comprehensive guidance on sustainable energy and mineral resource management in Africa for the following functions:

- Regional Africa resource management: To enable and support coherent and consistent regional resource classification and management policies and associated regulations at African Union level in the service of delivering the African Union Agenda 2063 and the Africa Mining Vision.
- National resource management: To assist the development and implementation of sustainable resource management policies and regulations at national level.
- Company internal business process innovation: To enable companies to develop and adopt business processes that are sustainable, profitable, socially inclusive, environmentally responsible and resilient
- Financial reporting: To enable companies to report resource assets and raise finances from appropriate financial institutions in a manner consistent with international standards and good practices.

This document should be read and applied in conjunction with the latest version of UNFC and its Generic Specifications. Appropriate sectoral specifications, standards and guidelines (Minerals, Petroleum, Renewable Energy, Nuclear Fuels) should be applied for the concerned sectors.

This document is structured into four parts as below:

- Part A provides the background and general considerations of the system including the Africa Mining Vision and Sustainable Development Goals (Agenda 2030) context, which are deemed to be the overarching vision for the development of Africa's mineral and energy resources.
- Part B introduces the general, as well as sectoral principles of AMREC.
- Part C is the Pan-African Resource Reporting Code (PARC), which is a sub-component of AMREC that shall be used for public disclosures.
- Part D of the document provides guidelines for governance and maintenance of the document.

2. Agenda 2063

Agenda 2063 is a strategic framework for the socio-economic transformation of Africa over the next 50 years. Agenda 2063 builds on, and seeks to accelerate the implementation of past and existing continental initiatives for growth and sustainable development.

The guiding vision for Agenda 2063 is the African Union vision of:

“An integrated, prosperous and peaceful Africa, driven by its own citizens and representing a dynamic force in international arena”

The foundations for Agenda 2063 are:

- The Constitutive Act of the African Union
- The African Union Vision
- The 8 Priority Areas of AU 50th Anniversary Solemn Declaration
- African Aspirations for 2063
- Regional and Continental Frameworks
- Member States National Plans and policies for sustainable development

The African Aspirations for 2063 that were derived through a consultative process with the African Citizenry are:

- A Prosperous Africa, based on inclusive growth and sustainable development
- An integrated continent, politically united, based on the ideals of Pan Africanism and the vision of Africa's Renaissance
- An Africa of good governance, democracy, respect for human rights, justice and the rule of law
- A Peaceful and Secure Africa
- Africa with a strong cultural identity, common heritage, values and ethics
- An Africa whose development is people driven, relying on the potential offered by people, especially its women and youth and caring for children
- An Africa as a strong, united, resilient and influential global player and partner

3. Sustainable Development Goals

On 25 September 2015, the 194 countries of the UN General Assembly adopted the 2030 Development Agenda titled Transforming our world: the 2030 Agenda for Sustainable Development. The Sustainable Development Goals (SDGs) is a set of 17 "Global Goals" with 169 targets among them.

The SDGs build on the success of the Millennium Development Goals (MDGs) and aim to go further to end all forms of poverty. The new Goals are unique in that they call for action by all countries, poor, rich and middle-income to promote prosperity while protecting the planet. They recognize that ending poverty must go hand-in-hand with strategies that build strong economic growth and addresses a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection.

While the SDGs are not legally binding, governments are expected to take ownership and establish national frameworks for the achievement of the 17 Goals. Countries have the primary responsibility for follow-up and review of the progress made in implementing the Goals, which will require quality, accessible and timely data collection. Regional follow-up and review will be based on national-level analyses and contribute to follow-up and review at the global level for a positive and global transformation of the society

While all the SDGs are relevant to resource management and AMREC, the most relevant ones are:

- SDG #1 - End poverty in all its forms everywhere
- SDG #2 - End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- SDG #5 - Achieve gender equality and empower all women and girls
- SDG #6 - Ensure access to water and sanitation for all
- SDG #7 - Ensure access to affordable, reliable, sustainable and modern energy for all
- SDG #9 - Build resilient infrastructure, promote sustainable industrialization and foster innovation
- SDG #10 - Reduce inequality within and among countries
- SDG #11- Make cities inclusive, safe, resilient and sustainable
- SDG #12 - Ensure sustainable consumption and production patterns
- SDG #13 - Take urgent action to combat climate change and its impacts
- SDG #15 - Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss
- SDG #17 - Revitalize the global partnership for sustainable development

AMREC-PARC will have a specific reference to the following targets:

- 1.6 - Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions.
- 2.3 - By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, local communities, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.
- 5.7 - Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.
- 6.3 - By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
- 7.1 - By 2030, ensure universal access to affordable, reliable and modern energy services

- 7.2 - By 2030, increase substantially the share of renewable energy in the global energy mix
- 9.4 - By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.
- 9.6 - Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States.
- 9.7 - Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities.
- 10.9 - Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes
- 11.4 - Strengthen efforts to protect and safeguard the world's cultural and natural heritage
- 11.8 - Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning
- 12.2 - By 2030, achieve the sustainable management and efficient use of natural resources
- 12.5 - By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
- 12.6 - Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle
- 15.3 - By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world
- 17.9 - Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation

Specific sustainability in resource management emphasized by AMREC will be grounded in the following core values:

- Energy and minerals as an eco-system service
- Comprehensive recovery of all value

- Holistic management and development of energy basins in Africa
- Zero waste – zero harm
- Tight linkages to Food-Water-Energy security

4. Africa Mining Vision

The Africa Mining Vision (AMV), “Transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development,” was adopted by Heads of State at the February 2009 African Union summit following the October 2008 meeting of African Ministers responsible for Mineral Development. It is Africa’s own response to tackling the paradox of great mineral wealth existing side by side with pervasive poverty. The term “mining” is meant all natural to refer to all-natural resources from the earth’s endowment, such as minerals, oil and gas, renewables and water, and includes secondary (anthropogenic) as well as primary resources.

The AMV is holistic. It advocates thinking outside the “mining box”. Accordingly, it is not just a question of improving mining regimes by making sure that tax revenues from mining are optimized and that the income is well spent – although that is clearly important. Rather it is a question of better integrating mining as a whole into development policies at local, national and regional levels.

The AMV stands for sustainable development of Africa’s mineral endowment through a vision of building an industry that:

- Is knowledge-driven, contributing to broad-based growth and development
- Hinges on sustainability, stakeholder inclusiveness and good governance
- Based on economic diversification environmental responsibility, innovation and vibrancy
- Focuses on maximization of local content and related socio-economic linkages
- Optimizes the management of resources at commercial and small-scale (artisanal) levels
- Harnesses the potential of artisanal and small-scale mining
- Is competitive in national, continental and international capital markets
- Earns and retains the social licence to operate
- Incorporates and implements social accountability through local content.

In particular, the AMV looks into maximizing benefits through judicious management of:

- Local content
- Value at source including equity participation
- Development of national and regional capabilities (intangible assets/ human capital)
- Resource value optimization
- Physical infrastructure
- Downstream value addition
- Upstream value-addition
- Technology/product development

To realize the shared vision, intervention is required around the following critical points:

- Availability and quality of the resource characterization, quantification and classification and data
- Capacity to negotiate equitable contracts resulting in stable social licences to operate
- Good governance
- Capacity to create and manage equitable participation in resource prosperity
- Infrastructure development
- Encompass artisanal and small-scale mining
- Development of Policy, Law and Regulations for the mining sector
- Capacity to create more added value through energy and mineral resource valorisation and transformation.

Establishment of African Mineral and Energy Resources Classification and Management (AMREC) as the continental system is specifically in line with the AMV.

5. Country Mining Vision and Resource Policies

To help the adoption of the Africa Mining Vision (AMV) at the national level through a multi-stakeholder consultative process with a view to formulating a shared vision on how mineral management can promote broad-based development and structural transformation of their respective countries.

Country Mining Visions (CMVs) and AMV-compliant mineral policies should be designed as critical components of national efforts aimed at achieving a country's sustainable developmental objectives. The CMVs are not intended to replace sectoral national resource policies.

The CMV process requires a good understanding of the challenges confronting the extractive sector; an appreciation of the geopolitics and political economy of mineral and energy resource production as well as the social dynamics arising from it; identification of key actors and their potential roles; and an honest and realistic discussion of the structural and enabling factors that can support or hinder the realisation of the vision.

6. Geological and Mineral Information System

The Geological and Mineral Information System (GMIS) Strategy has been produced by the African Mineral Development Centre (AMDC) to facilitate the strengthening of the African production, management and dissemination of geological and mineral information necessary for several important legal, economic, social and environmental applications.

Lack of geological and geospatial information has long been identified as a major constraint upon African nations' ability to maximise the potential of their minerals. These information gaps have resulted in countries being disadvantaged when it comes to: land use planning, the development of strategies for minerals exploitation, the development of infrastructure, and during contract negotiations.

The GMIS consists of African geological survey organizations (GSOs), universities, and other national and sub-national agencies with geological functions, the private sector and civil society groups that generate, hold or use geological information, along with Regional Economic Communities (RECs), centres of excellence and other international institutions

and initiatives that undertake or support the generation, management or sharing of geological information. Together these entities, their activities and their data form a system.

AMREC will provide the taxonomy and harmonized terminology that can be used by GMIS for enhanced contribution of geological information for informed policy and decision-making across the mineral value chain. Having GMIS implemented Africa-wide with use of consistent information generated by AMREC for mineral and energy projects will promote broad-based development.

7. United Nations Framework Classification for Resources

The United Nations Framework Classification for Resources (UNFC) is a classification system for sustainable development of energy and mineral endowments.

UNFC applies to energy resources including oil and gas; renewable energy; nuclear fuel resources; minerals; injection projects for the geological storage of CO₂; and the anthropogenic resources such as secondary resources recycled from residues and wastes.

The emerging challenges in these sectors are the sustainable, environmental friendly, carbon-neutral and efficient development, production of energy and raw materials required for a growing population. Innovations in production, consumption and transportation are fundamentally challenging how energy and material sectors function today. As a unique tool for harmonizing policy framework, government oversight, industry business process and efficient capital allocation, UNFC can manage the natural resources required for the present and future needs of the society and realizing the objectives on Sustainable Development Goals (SDGs).

UNFC, in its core principles, encompasses the holistic management of all social, environmental, economical, technological and uncertainty aspects of energy and mineral projects. The project maturity and resource progression model of UNFC can de-risk projects from costly failures and thus protect the investments. UNFC fully integrates social and environmental considerations and technology readiness required to bring clean and affordable energy resource projects into the market.

To help the application of UNFC uniformly worldwide, guidelines on requirements for competency of the personnel are included in the system. However, application of UNFC needs to be tailored for use nationally, regionally and globally.

The basic principles on UNFC are structured to drive the AMV vision of building a knowledge-driven mineral and energy industry in Africa that can contribute to broad-based growth and development. UNFC's emphasis on SDGs and linked guidelines on social and environmental considerations is tightly coupled to AMV's call for sustainability and good governance.

Aspiration for resiliency in energy and mineral industry is linked to developing diversification and vibrancy as called for in the AMV. Such an approach is urged by UNFC to tide of the recurrent "boom-and-bust" cycles common in the industry. This is also linked to maximization of local and regional socio-economic linkages and optimization resource management at commercial and small-scale levels including promotion of artisanal and small-scale mining.

UNFC, when applied within the context of the AMV and SDGs offers the opportunity to redefine the way resources can be most effectively managed to maximize its social, economic and environmental benefits. For this to happen policies, regulations, company business process innovation and financing must be working together with more harmony and understanding.

8. United Nations Resource Management System

Considering the scope and interconnectedness of sustainable resource management, UNFC is now being expanded as the United Nations Resource Management System (UNRMS). UNFC will remain at the core as the classification framework, while UNRMS will provide a tool kit for the systemic development of a project through time, whether comprising a single resource or combinations of different resources, to ensure its capacity to contribute to sustainable development within the “people, planet prosperity” remit of the 2030 Agenda for Sustainable Development.

UNRMS, through a systems approach to sustainable resource management seeks to enable tighter integration of the policies, especially the sustainable development programme of a country or a company to the project level implementation. Such an integration, if realized, will bring out an essential transformation in the resource management landscape, with emergent patterns such as:

- Resource centering, the life-cycle management of resources
- Value centering, discovery of economic resources and targeting social and environmental returns
- Service or customer centering, breaking away from the commodity paradigm
- Security of supply and criticality, examining the strategic needs.

Each of the above is contributory to a transition in resource management from a linear to a circular economy, where all resources whether primary or secondary are retained to the fullest extent possible within the system boundaries resulting in waste reduction to the point of eventual “zero waste”.

While economic gains and operating profits matter, these need not be the prime drivers of a new resource management model. Profits should follow good social and environmental outcomes. This is not a radical view; many businesses have been built on similar foundations for a century or more.

Based on the first principles thinking of identification of current assumptions, collapsing the problem into its fundamental principles and creating new knowledge-based solutions, some of the core approaches in resource management can be easily identified. This approach, which will have to be implemented at a project level include, but is not limited to:

- Comprehensive resource recovery, the basic premise that the project footprints should be minimized by recovering all values, including co- and by-products and eco-system benefits
- Circularity, to include all actions to ensure raw materials remain within the boundaries set by the requirements of “reduce, reuse, recycle.”

- Zero harm and zero waste, the movement towards maximization of safety for the people and the environment and elimination of all wastes.

Although the crucial roles of resource efficiency, circularity and waste minimization are well studied and reported, UNRMS through a comprehensive set of tools support the implementation these objectives.

9. Overall Framework of AMREC

AMREC is to be applied and implemented in conjunction with:

- The AMV which provides a holistic framework for the energy and mineral industry to contribute better social, environmental and economic outcomes in Africa.
- Agenda 2063, that calls for a Prosperous Africa, based on inclusive growth and sustainable development
- Global Agenda 2030 for Sustainable Development that urges furthering of prosperity while protecting the planet
- Principles, definitions, generic specifications, sectoral specifications and guidelines of UNFC.

Overall framework of AMREC System and PARC code that sits under the AMV, Agenda 2063 and 2030 Agenda is shown in Fig. A1. While the AMV, Agenda 2063 and Global Agenda 2030 provide the overarching frame for application of AMREC, the following broad definitions could be used:

- AMREC – African Mineral and Energy Resources Classification and Management System for regional and national resource management
- PARC – Pan-African Resource Reporting Code for public disclosure

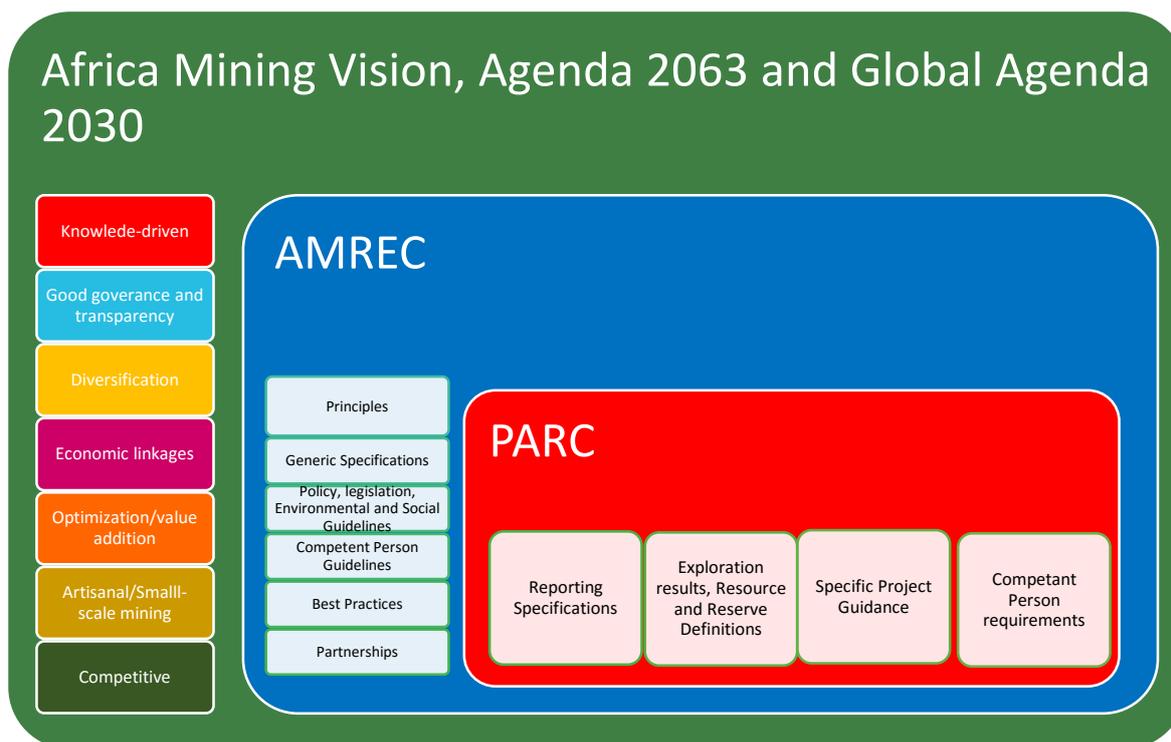


Figure A1. Overall structure of the AMREC-PARC

10. Language convention used in AMREC-PARC

The following language conventions will apply through this document:

- “Shall” is used where a provision is mandatory
- “Should” is used where a provision is preferred
- “May” is used where alternatives are equally acceptable.

Throughout this document, unless otherwise stated or the content requires otherwise, an expression which denotes any gender includes other genders.

PART B - THE AMREC SYSTEM

1. Scope

The African Mineral and Energy Resources Classification and Management System (AMREC) will facilitate comprehensive resource management for Africa, focused on six primary functions:

- Resource policy and strategy formulation aligned to SDGs and AMV
- Government/Industry resource management system
- Industry business process management
- Capital allocation (Economic)
- Capacity and capability building (human resources and institutions)
- Earning and keeping the social licence to operate and incorporate and implement social accountability.

The resource management value-chain aligned with AMREC has five aspects as given in Fig. B1 below (after World Bank).

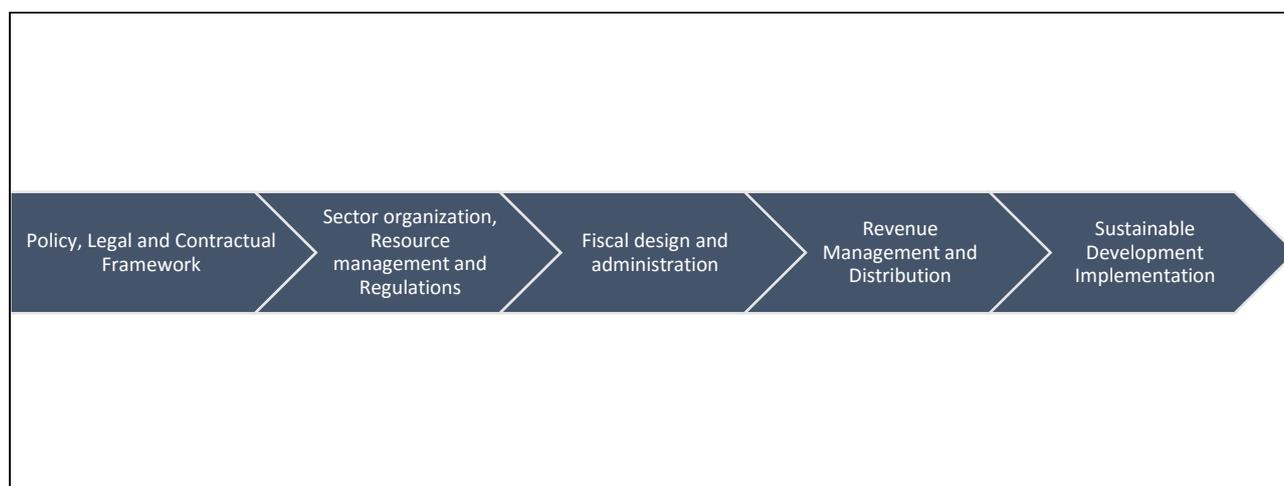


Figure B1 Resource Management Value-chain

They cover (1) the establishment of a legal framework that will convey and enforce rights to investors within a broad policy for development of publicly owned resources, (2) the institutional organization of the sector and particularly the regulation and monitoring of operations in the public interest, (3) the design and collection of taxes and royalties together with promotion of local content, (4) revenue management and distribution, and (5) the implementation of sustainable development policies.

The streamlined application of the framework model above will benefit stakeholders by addressing three technical factors that contribute to “resource curse”, namely:

1. revenue volatility
2. the so-called “Dutch Disease”
3. resource exhaustion

In addition to the technical factors that contribute to negative outcomes from resource development, political factors too may play a role if not mitigated.

2. Classification and management of projects

Classification of projects within the AMREC system is aligned to the United Nations Framework Classification for Resources (UNFC) (Figure B2), while the resource management is aligned to the resource management value chain. It should be noted that the UNFC may be revised or updated where necessary through the annual meeting of the Expert Group on Resource Management (EGRM) of the United Nations Economic Commission for Europe (UNECE). AMREC Working Group will consider those updates and adapt it as necessary in alignment to AMV for subsequent updates of AMREC.

3. Application

The AMREC system is applicable but not limited to the following:

- Mineral⁵¹ resources - solid, liquids
- Petroleum resources
- Renewable energy including but not limited to geothermal energy, bioenergy, solar energy, wind energy and hydro power.

4. Structure of the system

The AMREC system encompasses both the classification and management of natural resources and provides a clear distinction between:

- AMREC Principles (definitions)
- AMREC Specifications (mandatory rules) and
- AMREC Guidelines (non-mandatory guidance and best practices).

The term mandatory is used within the context of assumed consistent use of this system as recommended by the African Union, i.e., if AMREC is adopted for use, then its specifications will be mandatory for use in Africa.

5. AMREC Principles

High-level AMREC principles are provided in the following sections.

5.1. Categories and sub-categories

AMREC, as is based on UNFC, is a generic principle-based system. Resources are classified according to the three criteria:

E (E-axis) – Social, environmental and economic viability

F (F-axis) - Field project status and feasibility

G (G-axis) – Geological knowledge/Confidence in estimates

The first set of categories (the E axis) designates the degree of favourability of social, environmental and economic conditions in establishing the commercial viability of the project, including consideration of market prices and relevant legal, regulatory and

⁵¹ Strict geological definition of minerals is not applied here.

contractual conditions. The second set (the F axis) designates the maturity of studies and commitments necessary to implement the projects. The third set of categories (the G axis) designates the level of confidence in estimates. Combinations of these criteria create a three-dimensional system (Fig B2).

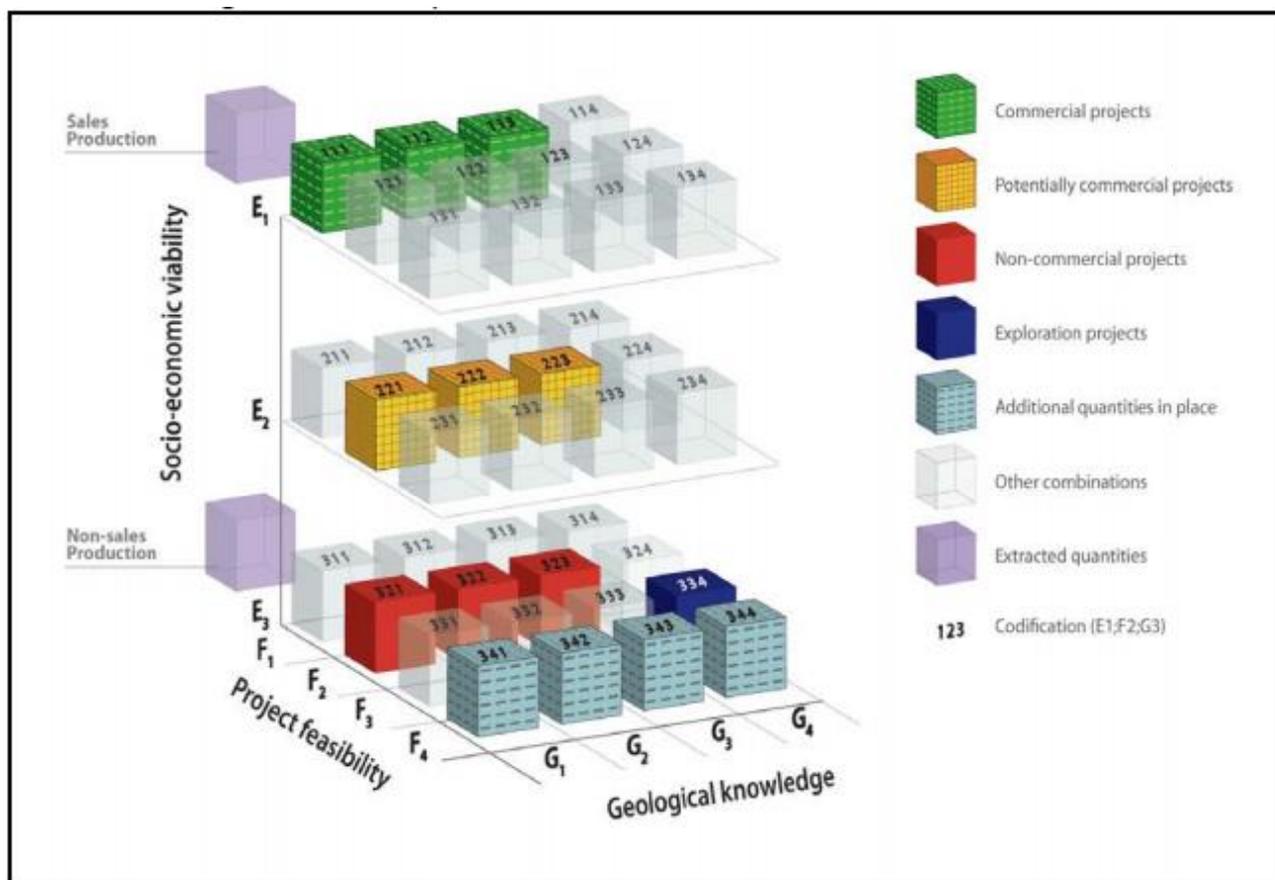


Figure B2 AMREC Categories and Examples of Classes

5.2. Definition of Categories and Supporting Explanations

AMREC, definitions are based on UNFC, tailored to the African context.

5.2.1. Social, environmental and economic viability

As shown in Table B1 resource progression on the E axis is differentiated in three stages, from 3 (low state) to 1, high state, in production or commercially viable.

Table B1 Social, economic and environmental viability, E axis

Category	Definition	Supporting Explanation
E1	Development has been confirmed to be socially, environmentally and economically viable.	Development is socially, environmentally and economically viable on the basis of current market conditions and realistic assumptions of future market conditions. All necessary conditions have been met or there are reasonable expectations that all necessary conditions will be met within a reasonable timeframe and there are no impediments to the delivery of the raw material or energy to a market. Social, environmental and economic viability is not affected by short-term adverse market conditions provided that longer-term forecasts remain positive.
E2	Development expected to become socially, environmentally and economically viable in the foreseeable future.	Development is not yet confirmed to be socially, environmentally and economically viable but, on the basis of realistic assumptions of future conditions, there are reasonable prospects for social, environmental and economic viability in the foreseeable future.
E3	Development not expected to become socially, environmentally and economically viable in the foreseeable future or evaluation is at too early a stage to determine economic, social and environmental viability.	On the basis of realistic assumptions of future conditions, it is currently considered that there are not reasonable prospects for social, environmental and economic viability in the foreseeable future; or, economic viability of extraction cannot yet be determined due to insufficient information. Also included are estimates associated with projects that are forecast to be developed, but which will not be available for sale.

5.2.2. Field project status and feasibility

Field project status and feasibility (F axis) is differentiated in 4 resource progression stages, of which F4 is lowest and F1 in production or technically fully viable (Table B2).

Table B2 Field project status and feasibility, F axis

Category	Definition	Supporting Explanation
F1	Feasibility of a development project has been confirmed.	Development is currently taking place or, sufficiently detailed studies have been completed to demonstrate the feasibility of development.

F2	Feasibility of production by a defined project is subject to further evaluation.	Preliminary studies of a defined project provide sufficient evidence of the potential for development that further study is warranted. Further data acquisition and/or studies may be required to confirm the feasibility of development.
F3	Feasibility of a development project cannot be evaluated due to limited technical data.	Very preliminary studies of a defined (at least in conceptual terms) project or potential project, indicate the need for further data acquisition or study in order to evaluate the potential feasibility of development.
F4	No development project has been identified.	Remaining quantities that will not be developed by any currently defined Project.

5.2.3. General Level of Knowledge / Confidence in Estimates

As shown in Table B3, Level of geological knowledge the G axis is differentiated into 4 levels of which G4 represents the least and G1 the highest level of certainty.

Table B3 Level of geological knowledge/ confidence in resource estimates, G axis

Category	Definition	Supporting Explanation
G1	Quantities associated with a project can be estimated with a high level of confidence based on direct evidence.	Quantities may be categorized discretely as G1, G2 and/or G3 (along with the appropriate E and F categories), based on the level of confidence in the estimates (high, moderate and low confidence, respectively) based on direct evidence.
G2	Quantities associated with a project that can be estimated with a moderate level of confidence.	Alternatively, quantities may be categorized as a range of uncertainty as reflected by either (i) three specific deterministic scenarios (low, best and high cases) or (ii) a probabilistic analysis from which three outcomes (P90, P50 and P10) ⁵² are selected. In both methodologies (the “scenario” and “probabilistic” approaches), the quantities are

⁵² Where P90 means that there is a 90 per cent probability that the actual production quantity will exceed this estimate. Similarly, P50 and P10 reflect 50 per cent and 10 per cent probability respectively that the actual production quantity will exceed the estimate.

<p>G3</p>	<p>Quantities associated with a project that can be estimated with a low level of confidence.</p>	<p>then classified on the G Axis as G1, G1+G2 and G1+G2+G3 respectively.</p> <p>In all cases, potential production quantities are those associated with a defined Project.</p> <p>Additional Comments</p> <p>The G axis reflects the level of confidence in the potential recoverability of the quantities. Thus, the G axis categories are intended to reflect all significant uncertainties impacting the estimated quantities that are forecast to be produced by the Project. Uncertainties include both variability and the efficiency of the production methodology (where relevant). Typically, the various uncertainties will combine to provide a full range of possible outcomes. In such cases, categorization should reflect three scenarios or outcomes that are equivalent to G1, G1+G2 and G1+G2+G3.</p>
<p>G4</p>	<p>Estimated quantities associated with a potential project, based primarily on indirect evidence.</p>	<p>A potential project is one where the existence of quantities of socio-environmental-economic interest is based primarily on indirect evidence and has not yet been confirmed. Further data acquisition and evaluation would be required for confirmation.</p> <p>Where a single estimate is provided, it should be the expected outcome. Further subdivision, comparable to the G1/G2/G3 categories, is optional and is addressed through the use of sub-categories (G4.1, G4.2 and G4.3) as set out in Specification R of AMREC.</p> <p>In addition, it is recommended that the chance (probability) that the potential quantities will eventually lead to a Commercial Project is assessed and documented.</p>

5.3. Definition of Sub-Categories

5.3.1. E – Social, Environmental and Economic Viability

Sub categories of the E axis, social and economic variability, are shown in Table B4.

Table B4 Sub-categories of E axis

Category	Sub-Category	Sub-Category Definition
E1	E1.1	Development is socially, environmentally and economically viable on the basis of current conditions and realistic assumptions of future market conditions.
	E1.2	Development is not socially, environmentally and economically viable on the basis of current conditions and realistic assumptions of future conditions, but is made viable through government subsidies and/or other considerations.
E2	E2.1	Social and environmental viability is confirmed or, based on realistic assumptions of future conditions, there is a high probability that social and environmental viability will be confirmed within the foreseeable future.
	E2.2	Social and environmental viability is not confirmed, based on realistic assumptions of future conditions, but there is reasonable certainty that social and environmental viability will be confirmed within the foreseeable future.
E3	E3.1	Quantities that are forecast to be produced, but which will not be available for sale direct commercial use other than for development purpose.
	E3.2	Social, environmental and economic viability cannot yet be determined due to insufficient information.
	E3.3	On the basis of realistic assumptions of future conditions, it is currently considered that there are not reasonable prospects for social, environmental and economic viability in the foreseeable future.

5.3.2. F - Field Project Status and Feasibility

Sub categories of the F axis, field project status and feasibility, are shown in Table B5.

Table B5 Sub-categories of F axis

	F1.1	Development is currently taking place.
	F1.2	Capital funds have been committed and implementation of the development is underway.

F1	F1.3	Studies have been completed to demonstrate the feasibility of development.
F2	F2.1	Project activities are ongoing to justify development in the foreseeable future.
	F2.2	Project activities are on hold and/or where justification as a commercial development may be subject to significant delay.
	F2.3	There are no current plans to develop or to acquire additional data at the time due to limited potential.
F3	F3.1	Where site-specific studies have identified the potential development with sufficient confidence to warrant further testing.
	F3.2	Where local studies indicate the potential for development in a specific part of an area, but requires more data acquisition and/or evaluation in order to have sufficient confidence to warrant further testing.
	F3.3	At the earliest stage of studies, where favourable conditions for the potential development in an area may be inferred from regional studies.
F4	F4.1	The technology necessary is under active development, following successful pilot studies, but has yet to be demonstrated to be technically feasible for project or potential project.
	F4.2	The technology necessary is being researched, but no successful pilot studies have yet been completed.
	F4.3	The technology necessary is not currently under research or development.

5.3.3. G – General Level of Knowledge / Confidence in Estimates

In some situations, it may be helpful to express a range of uncertainty for quantities that are classified on the G axis as G4, e.g. Exploration Projects. In such cases, the following specification shall apply (Table B6):

Table B6 Sub-categories of G axis

G4	G4.1	Low estimate of the quantities.
	G4.2	Incremental amount to G4.1 such that G4.1+G4.2 equates to a best estimate of the quantities.
	G4.3	Incremental amount to G4.1+G4.2 such that G4.1+G4.2+G4.3 equates to a high estimate of the quantities.

Category G4, when used alone, shall reflect the best estimate and is equal to G4.1+G4.2. When category G4 is used, the probability of confirming the quantity should be given.

5.4. Definition of a resource project

A Project is a defined development or operation which provides the basis for social, environmental and economic evaluation and decision-making. In the early stages of evaluation, including exploration, the Project might be defined only in conceptual terms, whereas more mature Projects will be defined in significant detail. Where no development or operation can currently be defined for all or part of a resource, based on existing technology or technology currently under development, all quantities associated with that resource (or part thereof) are classified in Category F4.

5.5. Classes and sub-classes

A class is uniquely defined by selecting from each of the three criteria a particular combination of a category or a sub-category (or groups of categories/sub-categories). Since the codes are always quoted in the same sequence (i.e. E; F; G), the letters may be dropped and just the numbers retained. The numerical code defining a class is then identical in all languages using Hindu-Arabic numerals.

While there are no explicit restrictions on the possible combinations of E, F and G categories or sub-categories, only a limited number will generally be applicable. For the more important combinations (classes and sub-classes), specific labels are provided as a support to the numerical code, as illustrated in Tables B6 and B7.

As shown in Tables B7 and B8, the total estimated quantities are classified at a given date in terms of the following:

- (a) Produced quantities that have been sold or had commercial use other than for the development of the project – Commercial Production.
- (b) Produced quantities that have not been sold– Non-Commercial Production.
- (c) Quantities that may be produced in the future. Technical and commercial evaluation studies based on defined projects constitute the basis for the classification.
- (d) Remaining quantities not developed by any defined project.
- (e) Quantities of a potential resource that may be produced in the future. Technical and commercial evaluation studies based on potential projects constitute the basis for the classification.
- (f) Remaining quantities of commodity not developed by any potential project.

Material balance of total quantities can be maintained by full application of the classification.

Except for past production that may have been measured, quantities are always estimated. There will be a degree of uncertainty associated with the estimates. The uncertainty is communicated either by quoting discrete quantities of decreasing levels of confidence (high, moderate, low) or by generating three specific scenarios or outcomes (low, best and high estimates). A low estimate scenario is directly equivalent to a high confidence estimate (i.e. G1), whereas a best estimate scenario is equivalent to the combination of the high confidence and moderate confidence estimates (G1+G2). A high estimate scenario is

equivalent to the combination of high, moderate and low confidence estimates (G1+G2+G3). Quantities may be estimated using deterministic or probabilistic methods. Where relevant, known quantities that may be produced in the future are subdivided into quantities that are forecast to be sold and quantities that are forecast to be produced but not sold.

Quantities may be potentially produced in the future through projects that are contingent on one or more conditions yet to be fulfilled. Contingent projects are classified into projects for which the social- environmental-economic conditions are expected to be acceptable for implementation (Potentially Commercial Projects) and those where they are not (Non-Commercial Projects). In the former case, contingency is caused by the project not being sufficiently matured to proceed to development, which would then provide the basis for a commitment to produce and sell the product it at a commercial scale. In the latter case, neither the project nor the social-environmental-economic conditions are sufficiently viable to indicate a reasonable potential for commercial production, sale and/or utilization in the foreseeable future. The total quantities in place may give rise to several projects with different status.

5.6. Definition of classes

Resource (Mining, Petroleum, Renewable Energy) Project - A defined mining/petroleum/renewable energy operation, which provides the basis for social, environmental and economic evaluation and decision-making. A project comprises a defined activity or set of activities, which provide the basis for estimating both costs and potential revenues associated with its implementation.

Table B7 Two-dimensional matrix with E and F axis categories (top) showing the classes and sub-classes as in the bottom.

	E3.3	E3.2	E3.1	E2	E1
F1.1					1
F1.2					2
F1.3					3
F2.1				4	
F2.2		7		5	
F2.3	8		6		
F3.1		9			
F3.2		10			
F3.3		11			
F4	12				

Code	Class	Sub-class
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1		On Production
2	Commercial Projects	Approved for Development
3		Justified for Development
4		Development Pending
5	Potentially Commercial Projects	Development on Hold
6	Non-Sales Production	
7	Non-Commercial Projects	Development Unclarified
8		Development Not Viable
9	Exploration Projects	[Prospect], [Target Outline]
10		[Lead], [Early Exploration]
11		[Play], [Grassroots]
12	Additional Quantities in Place	

Commercial Projects – Current or future recovery by commercially viable mining/petroleum/Renewable Energy operations. Commercial Projects have been confirmed to be technically, socially, environmentally and economically feasible.

1. **On production** is used where the project is producing, and supplying one or more resource products to market, at the Effective Date of the evaluation.
2. **Approved for Development** requires that all approvals/permits/contracts are in place, and capital funds have been committed.
3. **Justified for development** requires that the project has been demonstrated to be technically feasible and commercially viable, and there shall be a reasonable expectation that all necessary approvals/contracts for the project to proceed to development will be forthcoming.

Potentially Commercial Projects - Potential future recovery by mining/petroleum/Renewable Energy operations, where development is pending or on-hold.

4. **Development pending** is limited to those projects that are actively subject to project-specific technical activities, such as the acquisition of additional data (e.g. appraisal drilling) or the completion of feasibility studies and associated social, **environmental** and economic analyses designed to confirm the commerciality including the determination of optimum development scenarios or mine plans. Also, the status may include projects that have non-technical contingencies, provided these contingencies are currently being actively pursued by the developers and are expected to be resolved positively within a reasonable time frame.

5. **Development on-hold** is used where a project is considered to have at least a reasonable chance of achieving commerciality (i.e. there are reasonable prospects for eventual social, environmental and economic recovery), but where there are currently major non-technical contingencies (e.g. environmental or social issues) that need to be resolved before the project can move towards development.

Non-Sales Production

6. **Non-Sales Production** are quantities that may be forecast to be extracted, but which will not be available for sale. Quantities those that will be used, lost, **destroyed** or otherwise disposed of during the production process, and hence will not be made available for sale, such as natural gas that is produced in association with oil and is then flared into the atmosphere or used on-site for operational purposes. In some situations, however, quantities may be extracted to the surface and then stored in some way for possible social, environmental and economically viable sale in the future.

Non-Commercial Projects - Potential future recovery by mining/petroleum/Renewable Energy operations, but where development is uncertain or development is currently assessed as not viable.

7. **Development unclarified** is appropriate for projects that are in the early stages of technical and commercial evaluation (e.g. a recent new discovery), and/or where significant further data acquisition is required, to make a meaningful **assessment** of the potential for a commercial development (i.e. there is currently insufficient basis for concluding that there are reasonable prospects for eventual social, environmental and economically viable recovery).
8. **Development not viable** is used where a technically feasible project can be **identified**, but it has been assessed as having insufficient potential to warrant any further data acquisition activities or any direct efforts to remove commercial impairments.

Exploration Projects - Potential future recovery by successful exploration activities. An Exploration Project is associated with one or more major occurrences, i.e., a resource that has not yet been demonstrated to exist by direct evidence (e.g. drilling and/or sampling), but has been assessed primarily on indirect evidence (e.g. surface or airborne geophysical measurements).

Table B8 AMREC Classes defined by categories and sub-categories

AMREC Classes Defined by Categories and Sub-categories					
	Class	Sub-class	Minimum Categories		
			E	F	G
Estimated	Produced	Commercial Production			
		Non Commercial Production			

	Known Resource	Commercial Projects	On Production	1	1.1	1, 2, 3
			Approved for Development	1	1.2	1, 2, 3
			Justified for Development	1	1.3	1, 2, 3
		Potentially Commercial Projects	Development Pending	2	2.1	1, 2, 3
			Development On Hold	2	2.2	1, 2, 3
		Non-Commercial Projects	Development Unclassified	3.2	2.2	1, 2, 3
			Development Not Viable	3.3	2.3	1, 2, 3
	Additional Quantities in Place		3.3	4	1, 2, 3	
	Potential Resource	Exploration Projects	[See Generic Specifications for sub-classes]	3.2	3	4
		Additional Quantities in Place		3.3	4	4

9. Prospect/Target Outline is used for quantities where site-specific studies and exploration activities have identified the potential for resources with sufficient confidence to warrant detailed studies (e.g. drilling or testing) that is designed to confirm the existence of that resource in such form, quality and quantity that the feasibility of production can be evaluated
10. Lead/Early Exploration is used where local studies and exploration activities indicate the potential for resources in a specific part of a province, but requires more data acquisition and/or evaluation in order to have sufficient confidence to warrant detailed studies (e.g. drilling or testing) that is designed to confirm the existence of the resource in such form, quality and quantity that the feasibility of production can be evaluated
11. Play/ Grassroots is used at the earliest stage of exploration activities, where favourable conditions for the potential discovery of resources in a province may be inferred from regional studies.

Additional quantities in place

12. **Additional quantities in place** associated with a known resource that will not be recovered by any currently defined or potential operation. Quantities should only be classified as additional quantities in place where no technically feasible projects have been identified that could lead to the recovery of any of these quantities.

6. AMREC Generic Specifications

Generic specifications set the minimum standards for using AMREC. Generic specifications are rules that will apply to all sectors and include a set of conditions that are mandatory under any circumstances.

6.1. Generic specifications applicable to all categories

A. Use of numerical codes

While the defined Classes and Sub-classes shown in AMREC may be used as supplementary terminology, the relevant Numerical Code(s) shall always be reported in conjunction with the estimated quantity. For example, these may be documented in the form 111, 111+112, or 1.1;1.2;1, as appropriate.

Note that some Sub-categories are defined below that are in addition to those provided in AMREC. These optional Sub-categories have been identified as potentially useful in certain situations and have been defined herein to ensure consistency in their application. Nothing in this document shall preclude the possible use of additional Sub-classes in the future that may be deemed to be useful in specific cases.

B. Bridging documents and aligned systems

If the application of AMREC is performed through a Bridging Document, it shall be mentioned.

C. Effective date

Classified quantities are estimates of remaining quantities as at the Effective Date of the evaluation. The Effective Date shall be clearly stated in conjunction with the reported quantities. The evaluation should take into account all data and information available to the evaluator prior to the Effective Date. If information becomes available subsequent to the Effective Date, but prior to classification, that could have significantly changed the estimated quantities as at the Effective Date, the likely effect of this information shall be mentioned.

D. Product type

Estimated quantities should be classified separately for each product type that will be sold, used, transferred or disposed of separately. Where estimates for different product types have been aggregated for classification purposes, and separate estimates are not provided, the aggregated estimates shall be accompanied by a statement clarifying which product types have been aggregated and the conversion factor(s) used to render them equivalent for the purposes of aggregation.

E. Basis for estimate

Estimated quantities may be those quantities attributable to the project as a whole or may reflect the proportion of those quantities that is attributable to the classifying entity's social, environmental and economic interest in the project. The reporting basis shall be clearly stated in conjunction with the reported quantities. Government royalty obligations are often treated as a tax to be paid in cash and are therefore generally classified as a cost of operations. In such cases, the reported quantities may include the proportion attributable to the royalty obligation. Where the reported quantities exclude the proportion attributable to the royalty obligation, this shall be disclosed.

F. Reference point

The Reference Point is a defined location within a production operation at which the classified quantities are measured or estimated. The Reference Point may be the product sales point from the operation, or it may be an intermediate stage, in which case the reported quantities would not take into account losses. The Reference Point shall be mentioned in conjunction with the classified quantities. Where the Reference Point is not the point of sale to third parties (or where custody is transferred to the entity's downstream operations), and such quantities are classified as E1, the information necessary to derive estimated sales quantities shall also be provided.

G. Aggregation of quantities

Estimated quantities associated with projects that are classified in different Categories on the Social, Environmental and Economic Viability or Feasibility axis shall not be aggregated with each other without proper justification and mention of the methodology adopted. In all cases, the specific Classes that have been aggregated shall be mentioned in conjunction with the classified quantity (e.g. 111+112+221+222) and a footnote added to highlight the fact that there is a risk that projects that are not classified as E1F1 (Commercial Projects) may not eventually achieve commercial operation.

Where estimated quantities have been aggregated from multiple projects, consideration should be given to sub-dividing the aggregated totals by type and by location (e.g. offshore vs. onshore).

H. Evaluator qualifications and accountability

Evaluators shall possess an appropriate level of expertise and relevant experience in the estimation of quantities associated with the type of resource under evaluation. The evaluator shall be accountable for the correct use of the classification and the correctness of the estimates reported irrespective of who have prepared them. See PART C PARC Section 5 Competence and Responsibility for the requirements of Competent Persons required for Public Disclosure.

I. Units and conversion factors

To facilitate global comparability of resource estimates the Système International d'Unités (SI units) shall be used for reporting of resource quantities.

J. Documentation

Estimates of resource quantities shall be documented in sufficient detail that would allow an independent evaluator or auditor to clearly understand the basis for estimation of the classified quantities and their classification.

6.2. Generic specifications applicable to E-axis categories

K. Socio-Environmental-Economic assumptions

In accordance with the definitions of E1, E2 and E3, socio-environmental-economic assumptions shall be based on current market conditions and realistic assumptions of future market conditions. Except where constrained by regulation, assumptions of future market conditions should reflect the view of either:

The organization responsible for the evaluation;

The view of a competent person or independent evaluator; or,

An externally published independent view, which is considered to be a reasonable forecast of future market conditions.

The basis for the assumptions (as opposed to the actual forecast) shall be disclosed.

L. Distinction between E1, E2 and E3

The distinction between quantities that are classified on the Socio-Environmental-Economic axis as E1, E2 or E3 is based on the phrase “reasonable prospects for economic, social and environmentally viable production and sale in the foreseeable future”. The definition of “foreseeable future” can vary depending on the product type and hence more detailed specifications can be found in relevant sector-specific specifications.

The Socio-Environmental-Economic axis Categories encompass all non-technical issues that could directly impact the viability of a project, including product type prices, operating costs, legal/fiscal framework, environmental regulations and known environmental or social impediments or barriers. Any one of these issues could prevent a new project from proceeding (and hence quantities would be classified as E2 or E3, as appropriate), or it could lead to the suspension or termination of production activities in an existing operation. Where production activities are suspended, but there are “reasonable prospects for social environmental and economical viable production and sale in the foreseeable future”, remaining technically recoverable quantities shall be reclassified from E1 to E2. Where “reasonable prospects for social, environmental and economically viable production and sale in the foreseeable future” cannot be demonstrated, remaining quantities shall be reclassified from E1 to E3.

M. Produced quantities that may be saleable in the future

The Sub-categories of E3 permit a distinction to be made between those quantities that may be forecast to be produced, but which will not be available for sale (E3.1) and those for which there are currently no reasonable prospects for social, environmental and economically viable production and sale in the foreseeable future (E3.3). In the former case, the quantities are those that will be used, lost, destroyed or otherwise disposed of during the production process, and hence will not be made available for sale. In some situations, however, quantities may be produced and then stored in some way for possible social, environmental and economically viable sale in the future and these may be assigned to E3.3 (and subsequently moved to E2 and E1 as appropriate).

6.3. Generic specifications applicable to F-axis categories

N. Classification of projects based on level of maturity

Where it is considered appropriate or helpful to sub-classify projects to reflect different levels of project maturity, based on the current status of the project, the Sub-classes shown in Figure B7 and B8 of AMREC may be adopted.

O. Distinction between recoverable quantities and in situ (in-place) quantities

Other than quantities that are classified on the Feasibility axis as F4, all classified quantities shall be limited to those quantities that are potentially recoverable on the basis of existing technology or technology currently under development, and are associated with actual or possible future projects. In the absence of any consideration of potential social-environmental-economically viable recoverability, all reported quantities shall be classified

as F4. This will add quality to the estimates by constraining the aggregate of recoverable quantities and otherwise. For stocks of resources affected by both inflow and outflow, e.g. anthropogenic resources it may be used to quantify the expected resource inflows during the project term.

P. Classification of quantities associated with Exploration Projects

In some situations, it may be helpful to sub-classify Exploration Projects on the basis of their level of maturity. In such cases, the following specification shall apply:

- a) F3.1: where site-specific studies have identified the potential for an individual product type with sufficient confidence to warrant further testing;
- b) F3.2: where local studies indicate the potential for one or more projects in a specific part of an area, but requires more data acquisition and/or evaluation in order to have sufficient confidence to warrant further testing;
- c) F3.3: at the earliest stage of studies, where favourable conditions for the potential project are inferred.

Q. Classification of additional quantities in place

In some situations, it may be helpful to sub-classify Additional Quantities in Place on the basis of the current state of technological developments. In such cases, the following specification shall apply:

- a) F4.1: the technology necessary to recover some or all of the these quantities is currently under active development, following successful pilot studies on other resources, but has yet to be demonstrated to be technically feasible for the style and nature of resource in which that product type is located;
- b) F4.2: the technology necessary to recover some or all of the these quantities is currently being researched, but no successful pilot studies have yet been completed;
- c) F4.3: the technology necessary to recover some or all of these quantities is not currently under research or development.

6.4. Generic specifications applicable to G-axis categories

R. Confidence levels for G1, G2 and G3

The level of confidence for quantities that are classified on the G axis as G1, G2 and G3 is defined as “high”, “medium” and “low”, respectively. These are not specified more precisely at a generic level because there are fundamental differences between the approaches that are appropriate for different product types. More detailed specifications can therefore be found in relevant sectoral specifications.

S. Expansion of G4 to account for uncertainty

In some situations, it may be helpful to express a range of uncertainty for quantities that are classified on the G axis as G4, e.g. Exploration Projects. In such cases, the following specification shall apply:

- a) G4.1: low estimate of the quantities;

- b) G4.2: incremental amount to G4.1 such that $G4.1+G4.2$ equates to a best estimate of the quantities;
- c) G4.3: incremental amount to $G4.1+G4.2$ such that $G4.1+G4.2+G4.3$ equates to a high estimate of the quantities.

Category G4, when used alone, shall reflect the best estimate and is equal to $G4.1+G4.2$.

T. Optional labels for estimates

Where it is considered appropriate or helpful to use labels in addition to the numerical codes for a range of estimates for a specific project, the terms “Low Estimate”, “Best Estimate” and “High Estimate” may be used to correspond to quantities that are classified on the Geological axis as G1, $G1+G2$ and $G1+G2+G3$ respectively.

7. AMREC Sectoral Specifications

7.1. Minerals

This section provides the AMREC solid minerals related rules and the Controlling Factors to be considered for moving projects from lower to higher maturity.

7.1.1. Mining Project

A defined mining operation, which provides the basis for social, environmental and economic evaluation and decision-making. A project comprises a defined activity or set of activities, which provide the basis for estimating both costs and potential revenues associated with its implementation.

7.1.2. Commercial Projects

Current or future recovery by commercially viable mining operations. Commercial Projects have been confirmed to be technically, social, environmental and economically viable.

In production is used where the project is producing, and supplying one or more mineral products to market, at the Effective Date of the evaluation.

Approved for Development requires that all approvals/permits/contracts are in place, and capital funds have been committed.

Justified for development requires that the project has been demonstrated to be technically feasible and commercially viable, and there shall be a reasonable expectation that all necessary approvals/contracts for the project to proceed to development will be forthcoming.

7.1.3. Potentially Commercial Projects

Potential future recovery by mining operations, where development is pending or on-hold.

Development pending is limited to those projects that are actively subject to project-specific technical activities, such as the acquisition of additional data (e.g. appraisal drilling) or the completion of feasibility studies and associated social, environmental and economic analyses designed to confirm the commerciality including the determination of optimum development scenarios or mine plans. Also, the status may include projects that have non-technical contingencies, provided these contingencies are currently being actively pursued by the developers and are expected to be resolved positively within a reasonable time frame.

Development on-hold is used where a project is considered to have at least a reasonable chance of achieving commerciality (i.e. there are reasonable prospects for eventual social, environmental and economically viable production), but where there are currently major non-technical contingencies (e.g. environmental or social issues) that need to be resolved before the project can move towards development.

7.1.4. Non-Commercial Projects

Potential future recovery by mining operations, but where development is uncertain or development is currently assessed as not viable.

Development unclarified is appropriate for projects that are in the early stages of technical and commercial evaluation (e.g. a recent new discovery), and/or where significant further data acquisition is required, in order to make a meaningful assessment of the potential for a commercial development (i.e. there is currently insufficient basis for concluding that there are reasonable prospects for eventual social, environmental and economically viable production).

Development not viable is used where a technically feasible project can be identified, but it has been assessed as having the insufficient potential to warrant any further data acquisition activities or any direct efforts to remove commercial impairments.

7.1.5. Exploration Projects

Potential future recovery by successful exploration activities.

An Exploration Project is associated with one or more major occurrences, i.e., a deposit that has not yet been demonstrated to exist by direct evidence (e.g. drilling and/or sampling), but has been assessed primarily on indirect evidence (e.g. surface or airborne geophysical measurements).

7.1.6. Additional quantities in place

Additional quantities in place associated with a known deposit that will not be recovered by any currently defined mining operation. Quantities should only be classified as additional quantities in place where no technically feasible projects have been identified that could lead to the production of any of these quantities.

7.1.7. Assessment of Exploration Projects

AMREC's Exploration Project Class corresponds to undiscovered mineral potential. The terms "deposit", "resource", and "undiscovered" have specialized and specific meanings when applied to mineral assessment and estimation studies. A "deposit" is defined as a mineral (or brine) accumulation or concentration of sufficient quantity, quality and form that, under the most favourable of circumstances, is considered to have the potential for social-environmental-economic development, including deposits under development, actively producing, and past-producers. A "resource" is defined as an already explored mineral accumulation or concentration of sufficient quantity, quality, and form, and in such setting that social-environmental-economically viable recovery of a mineral from the accumulation or concentration is currently or foreseeably feasible. An "undiscovered mineral potential" is defined as an occurrence or showing postulated to exist by indirect geologic evidence, for which the quantity, quality or form are not known, or some combination thereof is only partially or incompletely known.

Assessment of undiscovered mineral potential may be qualitative, specifying the general geographic area and may include some degree of mineral potential and certainty, or quantitative, which includes probabilistic estimates of the number of undiscovered deposits and their contained undiscovered resources.

The three-part form of assessment works in both data-rich (brownfields) and data-poor (greenfields) settings. It provides internally consistent estimates of undiscovered minerals inventory represented as permissive tract maps and probability frequency distributions of an in-place mineral for a given permissive tract. The resulting probability estimates of undiscovered mineral potential can be evaluated using social-environmental-economic filters and other tools for land use, and policy analysis.

7.1.8. Defining the factors that control resource progression

Controlling Factors (CF) are all social, environmental, economic, technological and geological factors that should be considered when changing a mineral project from one class to another. In the early stages of the project, many of the CFs will be vague or unclarified. With the availability of more data, the CFs will acquire more clarity. The application and the adjustment of the following CFs and of the geological (technical) factors are represented in the G-Axis. At a higher level AMREC can only provide generic principles and specifications.

CFs that should be considered are:

1. Policy
2. Social
3. Economic
4. Regulatory
5. Treatment of exploration data
6. Mining Methods (including solution and brine mining)
7. Sorting
8. Processing
9. Refining
10. Metallurgical aspects
11. Comprehensive resource recovery
12. Value-addition
13. Environment
14. Anthropogenic resources /secondary management
15. Safety
16. Infrastructure
17. Marketing
18. The legal and contractual framework
19. Fiscal design and administration
20. Revenue management and distribution
21. Site closure
22. Remediation
23. External cost factors (esp. water treatment)
24. Human resources
25. Human rights
26. Gender equality and diversity
27. Sustainable Development Implementation

These AMREC controlling factors should be resolved to convert:

- G4 projects to E3 projects
- E3 projects to E2 projects
- E2F2 projects to E1F2 projects.

Efforts to advance Controlling Factors (CF) are commonly used to develop mineral potential and raise resources from lower classes (E3, E2) to higher ones, ultimately leading to production (E1). Such a set of defined and scaled factors will allow the harmonization and standardization of the mining business process through its entire value chain. In spite of the critical importance of the controlling factors related to technology, economics, environmental and social aspects, the measurements of these factors are presently vague and unscaled. The application of the conversion factors may lead to the conversion from “Potentially Commercial Projects” to bankable “Commercial Projects” and is among the most important steps for defining the social, environmental and economic viability of a mineral project and obtaining funding. As projects are assessed based on its combined social, environmental and economic viability it may be a case that some projects will be allowed to advance even when the bare economics are not viable according to strict market- or commodity-based measures of return, but if good social and environmental benefits outweigh the overall assessment.

However, many aspects of the CFs are currently unscaled and lack a structured and transparent classification such that any AMREC Evaluator with proven competence could apply these factors to any minerals worldwide. A classification of controlling factors should result in clear, transparent and comparable E1F1 estimates so that they can be applied to any mineral project anywhere in the world.

A meaningful, transparent and measurable classification of controlling factors requires a method to add and determine scaling for each controlling factor. Currently E2F2 to E1F1 conversion is applied by estimating the cost for mining, processing, metallurgical, processing and refining, infrastructure, social, environmental and economic considerations, marketing, legal and governmental factors, and subtracting the sum of these costs from the mineral value as defined by G2 and G1 resources.

The Metallurgical Factors could be scaled according to the environmental sustainability of the metallurgical flowsheet (e.g. if the acids used for processing are being recycled).¹

7.1.9. Mining Methods

There are numerous conventional and unconventional mining methods, which could be utilized to produce minerals. Each has its pros and cons depending on situation-specific characteristics like deposit type, ore morphology, mineralization style, mineralization depth, rock mechanics, safety, geopolitical factors, infrastructure, social, environmental and economic viability.

The following mining methods are considered as conventional mining technologies:

- Surface Mining (Open Pit Mining, Quarrying)
- Subsurface Mining (Room & Pillar, Longwall, Slope Mining and others)
- Placer Mining (Trenching)

Unconventional mining technologies:

- In-situ Recovery (ISR) or In-situ Leaching (ISL)
- Bio-leaching
- Solution Mining
- Brine Mining
- Borehole Mining
- Seafloor Mining
- Tailings Re-mining
- Space Mining

The future role of digital mining is noted for elaboration in future releases.

7.2. Petroleum

This section provides the AMREC guidelines applicable to petroleum and the Controlling Factors to be considered for moving projects from a lower to higher maturity level. As mentioned earlier the AMREC is designed as a project based system.

7.2.1. Petroleum Project

In the Petroleum context a Project represents the link between the petroleum accumulation and the decision-making process, including budget allocation and may constitute the development of a single reservoir or field, or an incremental development in a producing field, or the integrated development of a group of several fields and associated facilities with a common ownership. An individual project will represent a specific maturity level at which a decision is made on whether or not to proceed and there should be an associated range of estimated recoverable resources for that project.

7.2.2. Commercial Project

On Production is used where the project is actually producing and selling Petroleum to market as at the Effective Date of the evaluation. Although implementation of the project may not be 100% complete at that date, the full project shall have all necessary approvals and contracts in place, and capital funds committed. If a part of the project development plan is still subject to separate approval and/or commitment of capital funds such that it is not currently certain to proceed, that part should be classified as a separate project in the appropriate Sub- class.

Approved for Development requires that all approvals/contracts are in place, and capital funds have been committed. Construction and installation of project facilities should be underway or due to start imminently. Only a completely unforeseeable change in circumstances that is beyond the control of the developers would be an acceptable reason for failure of the project to be developed within a reasonable time frame.

Justified for Development requires that the project has been demonstrated to be technically feasible and commercially viable, and there shall be a reasonable expectation that all necessary approvals/contracts for the project to proceed to development will be forthcoming. In the Petroleum sector the recommended benchmark is that development would be expected to be initiated within 5 years of assignment to this subclass.

7.2.3. Potentially Commercial Projects

Development Pending is limited to those projects that are actively subject to project-specific technical activities, such as acquisition of additional data or detailed evaluation designed to confirm project commerciality and/or to determine the optimum development scenario. In addition, it may include projects that have non-technical contingencies, provided these contingencies are currently being actively pursued by the developers and are expected to be resolved positively within a reasonable time frame. Such projects would be expected to have a high probability of achieving commerciality.

Development On Hold is used where a project is considered to have at least a reasonable chance of achieving commerciality (i.e. there are reasonable prospects for eventual socially, environmentally and economically viable production), but where there are currently major non-technical contingencies (e.g. environmental or social issues) that need to be resolved before the project can move towards development. The primary difference between

Development Pending and On Hold is that in the former case the only significant contingencies are ones that can be, and are being, directly influenced by the developers (e.g. through negotiations), whereas in the latter case the primary contingencies are subject to the decisions of others over which the developers have little or no direct influence and both the outcome and the timing of those decisions is subject to significant uncertainty.

7.2.4. Non-commercial Projects

Development Unclassified is appropriate for projects that are still in the early stages of technical and commercial evaluation (e.g. a recent new discovery), and/or where significant further data acquisition will be required, in order to make a meaningful assessment of the potential for a commercial development, i.e. there is currently insufficient basis for concluding that there are reasonable prospects for eventual economic, social and environmentally viable production.

Development not Viable is used where a technically feasible project can be identified, but it has been assessed as being of insufficient potential to warrant any further data acquisition activities or any direct efforts to remove commercial contingencies. In such cases, it can be helpful to identify and record these quantities so that the potential for a commercial development opportunity will be recognized in the event of a major change in technology or commercial conditions.

7.2.5. Additional Quantities in Place

Quantities should only be classified as Additional Quantities in Place where no technically feasible projects have been identified that could lead to the production of any of these quantities. Some of these quantities may subsequently become recoverable in the future due to the development of new technology.

7.2.6. Exploration Projects

Exploration projects includes estimates of undiscovered resources which are referred to as Prospective resources. They represent those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects.

7.3. Anthropogenic Resources

Anthropogenic resources or secondary resources that could be produced for residues and potential wastes need to be managed in line with the SDG 12 objectives, notably objective 12.5.

Energy and mineral value chains usually involve the generation of large quantities of residues. These residues often are defined a priori as “wastes” in laws or regulations or de facto end up as wastes and, if not properly managed threaten not only the environment but also the health and safety of the local populations. With energy and mineral production increasingly coming from lower grade sources, the quantities of residues and wastes are also growing exponentially, thus exacerbating the problem.

However, these residues are almost without exception important sources of secondary resources meaning that the residues themselves can safely be used for productive purposes rather than being consigned for disposal. In the past, there were technological challenges for the utilization of wastes but this is being addressed today through innovative

approaches. The activities that produce valuable secondary raw materials and energy required for society could also be social, environmental and economically attractive. Use of secondary resources importantly helps to conserve non-renewable primary resources for the benefit of future generations. This activity helps to meet the target of Sustainable Development Goal (SDG) 12 “Responsible Production and Consumption” on waste minimization through prevention, reduction, recycling and reuse.

7.3.1. Waste Hierarchy

AMREC Waste Hierarchy as shown in Figure B3 shows that indefinite disposal is the least favoured option. It is also by some distance the most costly solution and typically involved the indefinite loss of land use for lands set aside for disposal (eg landfills). By contrast, reuse, recycling and the recovery of energy from wastes has now become central to the contemporary sustainable project life-cycle, notably any project framed as part of a circular economy resource management approach. In this model, provision for “end of life” (EoL) requirements, some of which, such as progressive remediation, run in parallel with the project and shall be included in the project financials. These include a care and maintenance plan with associated financial resources, for any residues or tailing left behind. An effective plan for waste, with, as a vision, “zero waste” as the outcome, according to which no legacy problem should be left of subsequent generations than can be dealt with in the current generation.



Figure B3 AMREC Waste Hierarchy

7.3.2. Anthropogenic Material

The physical matter without any attribution from a social, environmental, economic, legislative, perspective, and without a specification of the aggregate state (solid, liquid, gaseous). Anthropogenic materials include, for instance, mineral materials, sewage sludge, biomass and off-gas.

7.3.3. Anthropogenic Resource

A concentration or occurrence of Anthropogenic Material of intrinsic social, environmental and economic interest, in such form, quality and quantity that there are reasonable prospects for eventual social, environmental and economically viable production.

7.3.4. Anthropogenic Material System

The system that locates Anthropogenic Material quantities inside the Anthroposphere and its surrounding environment. It comprises Anthropogenic Material Processes, linked by Anthropogenic Material Flows within defined system boundaries. Primary raw materials are the product of the primary production sectors, which extracts resources from the earth's crust and transform them by processing or refining. The resultant materials include but are not restricted to primary commodities. Primary commodities are typically traded as base materials for subsequent manufacturing (value-add) and consumption or use. Residues from primary production and primary commodities if not disposed of as wastes comprise Anthropogenic Material Stocks, from which Anthropogenic Materials quantities (also known as secondary resources) can be sourced.

7.3.5. Anthropogenic Material Sourcing Project

An anthropogenic material sourcing Project is a defined development or sourcing operation, which provides the basis for social, environmental and economic evaluation and decision-making.

7.3.6. Anthropogenic Material Process

A process is defined as the transformation, transport or storage of materials. Depending on the location of the process, a process is further defined as Anthropogenic Material Process or Environmental Material Process. In waste management, for example, transformation and storage takes place in terms of "reuse" "recycling recovery" (preferred) and "disposal" (least preferred – see Figure B3) . Each process is subject to the mass conservation principle, which means that the sum of inflows, stock changes and outflows is zero.

7.3.7. Anthropogenic Material Stock

An Anthropogenic Material Stock results from the accumulation of an Anthropogenic Material quantity in an Anthropogenic Material Process.

7.3.8. Anthropogenic Material Flow

An Anthropogenic Material Flow is the movement of Anthropogenic Material between two Anthropogenic Material Processes and is measured in mass per time.

7.3.9. Anthropogenic Material Source.

Any Anthropogenic Material Stock or any Anthropogenic Material Flow can be an Anthropogenic Material Source. An Anthropogenic Material Source contains material quantities that can be converted to Anthropogenic Material Products.

7.3.10. Anthropogenic Material Product

An Anthropogenic Material Product is a quantity that is saleable in markets. The cumulative quantities are equivalent to "Sales Production" according to AMREC.

Table B9 Classes and Sub-classes for Anthropogenic Resource Projects

Estimated Total material quantity initially in place	Past sourcing		Sales Production			
			Non-Sales Production			
	Future sourcing					
	Class	Sub-class	Categories			
			E	F	G	
Known Anthropogenic Material source	Commercial Projects	On Production	1	1.1	1, 2, 3	
		Approved for Development	1	1.2	1, 2, 3	
		Justified for Development	1	1.3	1, 2, 3	
	Potentially Commercial Projects	Development Pending	2	2.1	1, 2, 3	
		Development On Hold	2	2.2	1, 2, 3	
	Non-Commercial Projects	Development Unclassified	3.2	2.2	1, 2, 3	
		Development Not Viable	3.3	2.3	1, 2, 3	
	Additional quantities in place			3.3	4	1, 2, 3
	Potential Anthropogenic Material source	Exploration Projects	[No sub-classes defined]	3.2	3	4
		Additional quantities in place		3.3	4	4

7.3.11. Defining the Project

An anthropogenic material sourcing Project is a defined development or sourcing operation, which provides the basis for socio, environmental and economic evaluation and decision-making. In the early stages of evaluation, including exploration, the Project might be defined only in conceptual terms, whereas more mature Projects will be defined in significant detail.

Where no development or sourcing operation can currently be defined for quantities, based on existing technology or technology currently under development, all quantities associated with that Project (or part thereof) are classified in Category F4.

The classification procedure consists of identifying a Project, or Projects, estimating the existing and future quantities in place, with an associated level of confidence, and classifying the Project(s) based on Project status (or maturity) and commercial viability.

The “treatment and sourcing” process is the link between the quantities in the Anthropogenic Material Source and the Anthropogenic Material Products. There is a clear recognition of risk versus reward for the investors and key stakeholders such as governments and industry associations, linked to uncertainties and/or variability in the material quantity and quality, the efficiency of the sourcing process (e.g. reuse, preparation for reuse, recycling, recovery), the Anthropogenic Material Product prices and market conditions (including policy support

mechanisms), social acceptance and the environmental benefits compared to primary material sourcing. In the early stages of evaluation, the Project might be defined only in conceptual terms, whereas more mature Projects will be defined in significant detail.

Anthropogenic Material Stocks cover Anthropogenic Material quantities and qualities, which change over time. So, estimates on future quantities are based primarily on indirect evidence. In AMREC, a deposit with quantities based on indirect evidence is defined as a “Potential deposit”, which is a “Potential Anthropogenic Material Source” in this document. These quantities shall be added to category G4. It might be helpful to introduce sub-categories (G4.1, G4.2, and G4.3), based on the level of confidence, as it is defined for G1, G2 and G3.

7.3.12. Project lifetime

The estimated quantities for a Project shall be limited to quantities that will be produced during the Project Lifetime, which is defined as the social, environmental and economic limit, design life, or contract period for the Project, as defined below. The Project lifetime can sometimes be limited by the availability of the source material or by the extent of entitlement or social licenses. Because of its importance in estimating material quantities, the Project Lifetime and its basis shall be disclosed in association with any reported quantities.

The ‘social, environmental and economic limit’ is defined as the time at which the Project reaches a point beyond which the subsequent cumulative discounted net operating cash flows from the Project would be negative. For a Project, the social, environmental and economic limit may be the time when the expected recovery rate declines to a level that makes the Project unviable, or when it is unviable to invest in the further infrastructure required to retrieve remaining quantities from the Anthropogenic Material Source.

The ‘design life’ of a Project is the expected operating life of major physical infrastructure as defined during the technical and social, environmental and economic assessment of the Project. The replacement of significant project components will constitute a new Project, and a new evaluation and estimation of Anthropogenic Resources shall be performed.

The ‘contract period’ for an Anthropogenic Material sourcing Project is the term of all existing, or reasonably expected sales contracts for the Anthropogenic Material Products. The contract period should not include contract extensions unless there is a reasonable expectation of such extensions, based upon the historical treatment of similar contracts.

7.3.13. Entitlement

Entitlement refers to the rights to access Anthropogenic Material quantities that accrue to Project participants.

The ‘entitlement period’ is the term of all licenses and permits which provide rights to access the Anthropogenic Material Source, respectively, retrieve the material quantities and deliver the Anthropogenic Material Product into the market.

The Anthropogenic Material Source may be expected to last much longer than the Project Lifetime, but any future recovered quantities beyond those estimated for the Project would be assessed and classified as subsequent or additional Projects.

7.3.14. Development plan

In order to assign Anthropogenic Resources to any class, except for category F4 (no development project or sourcing operation has been identified), a development plan consisting of one or more Projects needs to be defined. The level of detail appropriate for such a plan may vary according to the maturity of the Projects and may also be specified by regulation.

7.4. Renewable energy

Renewable energy source is the equivalent of the terms “deposit” or “accumulation” used for petroleum and minerals. Renewable Energy Source is the primary energy (e.g., earth thermal energy, energy from sun, wind, biomass, river flow, tides, waves) available for production of (and conversion into) Renewable Energy Products. The main difference with fossil fuels or solid minerals is that, during the lifetime of the project, the Renewable Energy Source is being replenished.

A Renewable Energy Product is directly linked to (or a direct replacement of) a tangible energy commodity and is saleable in an established market. Examples of energy products are electricity, heat and biofuels. Other products extractable from the Renewable Energy Source in the same production process may not qualify as a Renewable Energy Product; nevertheless, they may contribute to the social, environmental and economic viability of the Project.

Renewable Energy Resources are the cumulative quantities of extractable Renewable Energy Products from the Renewable Energy Source, measured at the Reference Point.

7.4.1. Renewable energy project

The Renewable Energy Resource classification process consists of identifying a Project, or Projects, associated with a Renewable Energy Source, estimating the quantity of Renewable Energy Products that can be extracted from a Renewable Energy Source, with associated level of confidence, and classifying the Project(s) based on Project status (or maturity) and socio-environment-economic viability.

The Project is the link between the Renewable Energy Source and the quantities of Renewable Energy Products and provides the basis for social, environmental and economic evaluation and decision-making. There is a clear recognition of risk versus reward for the investor, linked to uncertainties and/or variability in the Renewable Energy Source (including the sustainability of production versus replenishment), the efficiency of the production and conversion process, Renewable Energy Product prices and market conditions (including policy support mechanisms) and social acceptance. In the early stages of evaluation, the Project might be defined only in conceptual terms, whereas more mature Projects will be defined in significant detail.

The cumulative quantity of Renewable Energy Products taken to the Project’s social, environmental and economic, contractual or other time limit defines the Renewable Energy Resource quantity.

7.4.2. Project lifetime

The forecasted Renewable Energy Resources associated with a Project are constrained by the Social, Environmental and Economic Limit on Project lifetime.

7.4.3. Entitlement

Entitlement defines the quantities of Renewable Energy Resource that accrue to Project participants.

7.4.4. Development plan

In order to assign Renewable Energy Resources to any class, except for category F4, a development plan needs to be defined consisting of one or more Projects. The level of detail appropriate for such a plan may vary according to the maturity of the Project and may also be specified by regulation.

7.5. Injection projects for geological storage

7.5.1. Geological Storage

The term Geological Storage refers mainly to permanent containment of carbon dioxide (CO₂) in subsurface geological formations, here referred to as reservoirs, with the purpose of isolating CO₂ emissions from the atmosphere. The storage reservoir can be for instance a depleted oil and gas reservoir or a saline aquifer. The application of AMREC described in this document has been developed primarily with Geological Storage of CO₂ in mind but can also be applied to other forms of injection projects where fluids are stored in geological formations.

Underground storage of hydrogen is sometimes referred to as Geological Hydrogen Storage. As hydrogen storage is likely to be temporary rather than permanent, this is more comparable to Underground Gas Storage as described below.

Natural gas is often held in inventory underground. The most commonly used underground facilities are depleted reservoirs in oil and gas fields, aquifers and salt caverns. The main difference between such storage and Geological Storage of CO₂, apart from the fluid itself, is that the natural gas is only temporarily stored and will at some point be withdrawn from the reservoir. The storage reservoir can be used repeatedly for temporary storage and subsequent withdrawal. Several different quantity measures will be associated with such storage. The total quantity that can be stored will be the sum of the quantity that is currently in storage and can be withdrawn (often referred to as working gas), the quantity of permanent inventory gas necessary to maintain sufficient pressure for withdrawal purposes (base gas or “cushion” gas), and the quantity currently available for storage.

When an Underground Gas Storage is developed, the technical and social, environmental and economical maturity of the project activities associated with it can be classified according to the principles of AMREC as outlined in this document. The different quantities associated with the classified projects should always be clearly stated.

Carbon dioxide (CO₂), nitrogen or natural gas is sometimes injected into a producing oil field in order to increase the amount of hydrocarbons that can be extracted. The resulting

hydrocarbon resources can be classified using AMREC as it is defined for recovery activities.

Table B10 AMREC classes and sub-classes defined by sub-categories, adapted for application to injection projects for the purpose of geological storage

AMREC Classes Defined by Categories and Sub-Categories as Applied to Injection Projects						
Total Geological Storage	Injected and Stored Quantities					
	Lost Quantities					
	Class	Sub-class	Categories			
			E	F	G	
	Known Reservoir	Commercial Injection Projects	Active Injection	1	1.1	1, 2, 3
			Approved for Development	1	1.2	1, 2, 3
			Justified for Development	1	1.3	1, 2, 3
		Potentially Commercial Injection Projects	Development Pending	2 ^b	2.1	1, 2, 3
			Development on Hold	2	2.2	1, 2, 3
		Non-Commercial Injection Projects	Development Unclarified	3.2	2.2	1, 2, 3
Development not Viable			3.3	2.3	1, 2, 3	
Storage Not Feasible		3.3	4	1, 2, 3		
Undiscovered Reservoir	Screening Projects	Geological Storage Identified	3.2	3.1 ^c	4	
		Geological Storage Indicated	3.2	3.2 ^c	4	
		Geological Storage Inferred	3.2	3.3 ^c	4	
	Storage Not Feasible	3.3	4	4		

When geological storage of the injected CO₂ is part of the objective of an increased recovery project, the stored quantities can be classified in the same way, applying AMREC as described in this document. The geological storage part of the project is likely to be developed in parallel with the hydrocarbon recovery part, and the two activities will in this case have the same level of maturity, but with two different types of quantities associated with it; the quantities that will be extracted and the quantities that will be stored.

The Total Geological Storage of a reservoir is the total amounts of a given fluid that could be injected and stored in this reservoir, including amounts that could be dissolved in aquifer water, be trapped by chemical reaction or adsorbed onto the carbon in coal bed methane recovery. How much of the Total Geological Storage initially in place will eventually be

utilized for geological storage, will depend on the specifics of the individual projects that are classified.

The Total Geological Storage is classified at a given date in terms of the following:

- (a) Injected and Stored quantities: Quantities of a fluid that have been injected and are currently stored in the reservoir. Projects at this stage may still require activities such as monitoring of any fluid movements, making sure that there is reasonable confidence that the injected fluid is retained in the reservoir
- (b) Lost quantities: Quantities that may be delivered to the injection site but which are lost in the transportation or surface facilities prior to injection. Equivalent to non-sales production.
- (c) Commercial and Potentially Commercial Projects: Geological storage associated with a known reservoir where injection for the purpose of geological storage is ongoing or which may be used for storage in the future. The classification is based on technical and commercial studies related to defined injection activities.
- (d) Non-Commercial Injection Projects: Additional geological storage associated with a known reservoir that will not be used for storage by any currently defined injection project.
- (e) Screening Projects: Geological storage associated with an undiscovered reservoir that may be used for storage in the future provided that the reservoir is confirmed;
- (f) Storage not feasible: Reservoir which will not be available for storage or where storage is for some reason not feasible.

7.5.2. Defining the Project

AMREC classifies quantities associated with projects. The injection project typically includes injection wells, monitoring wells, surface equipment, injection flow lines, and an operations control centre. The project may include pressure relief wells and produced fluid processing equipment. Depending on the location of the custody transfer, a delivery pipeline may be included in the injection project.

One or more injection wells may be required to store a projected rate and quantity of fluid. The monitoring well(s) may be within the storage unit and/or above the overlying cap rock or seal. The surface equipment may include injection lines and manifolds (and associated valves), a metre, and a pump or compressor (if needed to increase pipeline delivery pressure to injection wellhead pressure). An operations control centre may be at the injection site and/or remotely and is used to monitor and control injection operations.

The project should include estimates of storage quantities and injection rates. The reservoir, or the geologic formation planned to be used for storage and the respective overlying cap rock, should be characterized to meet the project goals. Projections of investments and other costs as well as revenue from storage should be estimated.

Once a project has been defined, AMREC can be used to classify the quantities stored according to the technical and social, environmental and economical maturity of the defined project activities.

7.5.3. Quantities Stored

The term Quantity refers to the quantity of a given fluid that could be stored in the reservoir being evaluated, given a defined project activity and a certain investment. CO₂ storage quantities are typically quoted in mass. The quantitative evaluation shall take into account both the geological knowledge of the subsurface at the time of the evaluation, and the engineering considerations relating to the reservoir properties as well as the chosen technical solution and the socio-environmental-economic conditions governing the project. The quantity will also depend on the composition of the stored fluid, which should be given with the storage quantity. The quantity stored in one reservoir may be the aggregated quantities from several sources, from one single source or part of the total quantity from one source.

7.5.4. Development Plan

In order for a project to be approved for development, a Plan for Development of the injection site and its operation shall be prepared. The Development Plan typically includes timeline, design elements, and socio-environmental-economics for the injection project. It is often part of a larger integrated project including capturing the fluid and transporting it to the injection site. The timeline should include lead time for equipment, drilling and completing wells, and for characterizing the reservoir as well as acquiring necessary injection permits and managements approval. The design elements should include well locations, completion techniques, drilling methods, site facilities (as needed), transportation, and the source and type of injection fluid. Socio-Environmental-Economic evaluations should include source of revenue, as well as capital and operating expenses for the full Project Life Time. The duration of the availability of the injection fluids should be known. A risk assessment should always be part of the development plan.

7.5.5. Project Life Time

Feasibility of an injection project for the purpose of Geological Storage comprises two components;

- (i) The injection of fluid and
- (ii) The retention of the injected fluid through one or more trapping mechanisms.

An injection project will need to include activities also after the active injection has ceased, such as monitoring of any fluid movements and making sure that there is reasonable confidence that the injected fluid is retained in the reservoir. How this will affect the total life time of the project will depend on the specifics of the project, the reservoir, the injected fluid and the prevailing rules and regulations.

When an injection project is classified as social, environmental and economically and technically feasible according to AMREC, the evaluation shall comprise the complete Project Life Time.

7.5.6. Socio-Environmental-Economic Viability

In AMREC, the phrase “Socio-Environmentally-Economically viable” encompasses social, environmental and economic factors (in the narrow sense) plus other relevant “market conditions”, and includes consideration of prices, costs, legal/fiscal frameworks and all other non-technical factors that could directly impact the viability of a development project. This definition is highly relevant also for geologic storage projects, where the strictly social,

environmental and economic feasibility of a project may depend on government subsidies or other incentives. Classifying a geologic storage project as Socio-Environmentally-Economically Viable within AMREC requires that all relevant non-technical factors have been considered.

7.5.7. Storage Permission

Geological storage of CO₂, or storage of other fluids in subsurface geological formations, may be subject to different local, national and/or international regulations and requirements. CO₂ storage sites should not be operated without a Storage Permit. Such permits may be given independently by the AU Member States and should be issued by an established or designated competent authority. All Storage Permits should also be made available to the African Union Commission. Other regulations may be relevant in other parts of the world.

In order for an injection project to be classified as Socio-Environmentally-Economically Viable according to AMREC, all required Storage Permits or other relevant permits shall be in place, or there shall be reasonable expectations that such permits will be obtained within a reasonable time frame.

8. AMREC Guidelines

Guidelines provide additional instruction on how AMREC should be applied in specific circumstances.

8.1. Definition of a project

A Project is a defined development or operation which provides the basis for social, environmental and economic evaluation and decision-making. In the early stages of evaluation, including exploration, the Project might be defined only in conceptual terms, whereas more mature Projects will be defined in significant detail. Where no development or operation can currently be defined for all or part of a resource, based on existing technology or technology currently under development, all quantities associated with that resource (or part thereof) are classified in Category F4.

8.1.1. Principles

AMREC is designed as a Project-based system for the evaluation and classification of energy and minerals located on or below the Earth's surface. Further development has demonstrated that the system can also be applied to renewable energy sources, anthropogenic resources as well as for injection Projects for the purpose of geological storage.

A Project comprises a defined activity, or set of activities, which provides the basis for estimating both costs and potential revenues associated with its implementation. The cost and revenue estimates can then be used for a social, environmental and economic analysis on which the decision whether or not to proceed with the Project can be based, together with other relevant commercial considerations, such as legal, environmental and social issues, all of which could impact the viability of the defined Project. Since future potential revenues will be based on estimated future product(s) quantities that can be produced and sold, and the efficiency of the production process will depend on the design of the Project itself (production methodology, infrastructure, processing requirements, etc.) these three issues – costs, recoverable product quantities and revenues – are inextricably linked by the nature of the defined Project.

As noted above, the level of detail with which a Project is defined will be dependent on the maturity of the Project. For example, at the exploration stage the expected production methodology may be defined in broad conceptual terms only, whereas a development commitment will generally require very detailed documentation of the production methodology, processing requirements (where required), export route(s), capital and operating costs, environmental protection procedures, social licence considerations, etc.

8.1.2. Project definition guidelines

The activity or set of activities which constitute the defined Project will always include some consideration of the operation or development scheme that could or will be implemented, or has been implemented, without which no estimate of potentially recoverable quantities can be made.

At an early stage of Project evaluation, the level of detail in such a consideration may be limited to making a preliminary judgement as to the extent of quantities that may be assumed to be social, environmental and economically producible and/or by assuming an appropriate range of potential recovery factors, which may be based on analogues for the type of and likely production/development strategy.

As a Project matures in its scope and definition as it approaches an investment decision, it will often change in character as it becomes better defined and there may be several stages of data acquisition and/or studies prior to reaching a “final investment decision”, at which point there would be a firm commitment to proceed with installation of the necessary facilities to produce and sell product(s). In many companies, these stages are separated by formal “decision gates” which are aligned with Project Maturity Sub-classes.

These decision gates typically require one or more of the following, where a failure to obtain any one of these approvals could stop the Project (as currently defined and proposed) from proceeding to the next stage (which would then be reflected in a move to a different Project Maturity Sub-class):

- a) Approval by one or more governmental entities to proceed with the next phase of the Project;
- b) Approval by the operating company (and its partners) for the expenditure of significant costs; and,
- c) Confirmation, to the extent possible, that local environmental and social concerns beyond regulatory requirements have been appropriately addressed.

Once a Project has received all the necessary approvals for production to commence, decisions for routine operational activities that do not require any of the above approvals would generally not constitute a discrete Project.

A single Project can reflect the development of part, or all, of a resource or the development of multiple adjacent resources (if they are all subject to the same investment decision and approvals based on a single integrated development plan, pre-feasibility or feasibility study). Where an investment decision is made with respect to part of a resource, then the infrastructure, costs and estimated recoverable quantities associated with that investment decision will constitute a single Project. Any potential for additional recovery from that resource would be subject to one or more subsequent and discrete Projects, to the extent

that each one required a separate decision and/or approval process. In such a case, incremental recovery associated with each subsequent defined Project is classified separately from the initial Project in accordance with the appropriate category (or sub-category) on the E, F and G axes for that specific incremental Project as at the Effective Date.

Sales quantities associated with an individual Project will always be classified under a single category (or sub-category) on the E axis and a single category (or sub-category) on the F axis. However, quantities associated with that Project could be, and in most cases will be, classified in more than one G axis category. The relationship between the Project and classification on the G axis depends on the nature of the production process, as noted in the Supporting Explanation for the definitions of the G1, G2 and G3 categories.

8.2. Use of project maturity to sub- classify projects

AMREC provides scope to sub-classify projects by applying the full range of Sub-category definitions. The application of this level of granularity of the system is optional, though it is becoming widely recognised as a powerful tool for portfolio management purposes, both as a corporate and at a national level. The Sub-classes reflect the concept of classification on the basis of project maturity, which broadly corresponds to the probability that the project will eventually achieve commercial operation and product type sales.

The Category and Sub-category definitions, as well as all generic specifications and relevant sectoral specifications necessary for the high-level classification into Commercial Projects, Potentially Commercial Projects and Non-commercial Projects, shall be satisfied before consideration is given to assignment to the appropriate Sub-class.

The project maturity Sub-classes are based on the associated actions (business decisions) required to move a project towards commercial production. The boundaries between different levels of project maturity are designed to align with internal (corporate) project “decision gates”, thus providing a direct link between decision-making and the capital value process within a company, and the characterization of its portfolio of assets through resource classification.

It is important to note that while the goal of the developer is always to move projects “up the ladder” toward higher levels of maturity, and eventually to commercial production, a change in circumstances (e.g. a change to local environmental, social or market considerations, or to the applicable fiscal regime, or disappointing results from further data acquisition) can lead to projects being “downgraded” to a lower Sub-class.

The following guidelines should be applied for sub-classes.

8.2.1. Commercial Projects

On Production is used where the project is actually producing and selling one or more product types to market as at the Effective Date of the evaluation. Although implementation of the project may not be 100% complete at that date, the full project shall have all necessary approvals and contracts in place, and capital funds committed. If a part of the project development plan is still subject to separate approval and/or commitment of capital funds such that it is not currently certain to proceed, that part should be classified as a separate project in the appropriate Sub- class.

Approved for Development requires that all approvals/contracts are in place, and capital funds have been committed. Construction and installation of project facilities should be underway or due to start imminently. Only a completely unforeseeable change in circumstances that is beyond the control of the developers would be an acceptable reason for failure of the project to be developed within a reasonable time frame.

Justified for Development requires that the project has been demonstrated to be technically feasible and commercially viable, and there shall be a reasonable expectation that all necessary approvals/contracts for the project to proceed to development will be forthcoming.

8.2.2. Potentially Commercial Projects

Development Pending is limited to those projects that are actively subject to project-specific technical activities, such as acquisition of additional data or the completion of project feasibility studies and associated socio-environmental-economic analyses designed to confirm project commerciality and/or to determine the optimum development scenario. In addition, it may include projects that have non-technical contingencies, provided these contingencies are currently being actively pursued by the developers and are expected to be resolved positively within a reasonable time frame. Such projects would be expected to have a high probability of achieving commerciality.

Development On Hold is used where a project is considered to have at least a reasonable chance of achieving commerciality (i.e. there are reasonable prospects for eventual socially, environmentally and economically viable production), but where there are currently major non-technical contingencies (e.g. environmental or social issues) that need to be resolved before the project can move towards development. The primary difference between Development Pending and On Hold is that in the former case the only significant contingencies are ones that can be, and are being, directly influenced by the developers (e.g. through negotiations), whereas in the latter case the primary contingencies are subject to the decisions of others over which the developers have little or no direct influence and both the outcome and the timing of those decisions is subject to significant uncertainty.

8.2.3. Non-commercial Projects

Development Unclassified is appropriate for projects that are still in the early stages of technical and commercial evaluation (e.g. a recent new discovery), and/or where significant further data acquisition will be required, in order to make a meaningful assessment of the potential for a commercial development, i.e. there is currently insufficient basis for concluding that there are reasonable prospects for eventual social, environmental and viable production.

Development not Viable is used where a technically feasible project can be identified, but it has been assessed as being of insufficient potential to warrant any further data acquisition activities or any direct efforts to remove commercial contingencies. In such cases, it can be helpful to identify and record these quantities so that the potential for a commercial development opportunity will be recognized in the event of a major change in technology or commercial conditions.

8.2.4. Additional Quantities in Place

Quantities should only be classified as Additional Quantities in Place where no technically feasible projects have been identified that could lead to the production of any of these

quantities. Some of these quantities may subsequently become recoverable in the future due to the development of new technology.

In some situations, it may be helpful to sub-classify Additional Quantities in Place on the basis of the current state of technological developments.

8.2.5. Basis of estimate

Reported quantities may be those quantities attributable to the mine/development project as a whole, or may reflect the proportion of those quantities that is attributable to the reporting entity's socio-environmental-economic interest in the project.

The reporting basis shall be clearly stated in conjunction with the reported quantities. Government royalty obligations are often treated as a tax to be paid in cash and are therefore generally classified as a cost of operations. In such cases, the reported quantities may include the proportion attributable to the royalty obligation.

8.2.6. Level of maturity

Where it is considered appropriate or helpful to sub-classify projects to reflect different levels of project maturity, based on the current status of the project, the optional Sub-classes may be adopted for reporting purposes.

8.3. Project life cycle and value chain

It is recommended that resources are classified taking into account the full project life cycle of a resource. Example of a mining life cycle from exploration to final site remediation and further recycling of residues is shown in Figure B4 as an example.

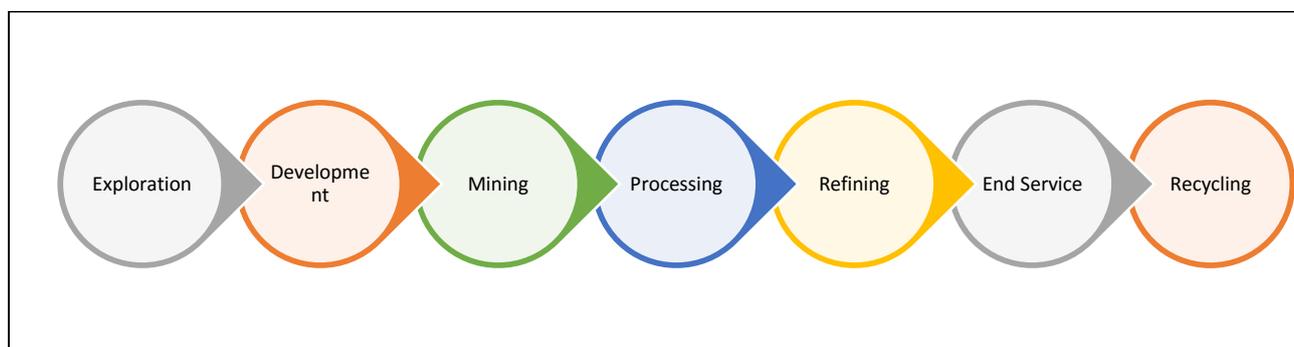


Figure B4. Example of a mining life cycle

8.3.1. Project Milestones and Decision Gates

The adoption of milestone and decision-gate approach to supporting mining and processing projects can facilitate smooth project planning and operation across the full project life-cycle including eventual closure, decommissioning and site handover. The methodology aligns with the AMREC criteria, geological knowledge, project feasibility, socio-environmental-economic viability focused on key milestones in a project life. A prerequisite of successful application of the model is a thorough needs and gap analysis. Based on the conclusions of the gap analysis capacity-building and resource deployment is targeted to a specific milestone rather than attempting to cover the whole life-cycle at once.

The desired outcome is a progressive strengthening of policy and regulatory frameworks achieved at a pace that a government can sustain, especially in a country where there is little or no familiarity with the demands of designing, licensing and operating a resource

project. The example of a mining project is shown in Figure B5. Of these milestones the fulcrum is the (pre-) feasibility study. Once passed, the selected control points effectively allow decision-makers to monitor overall preparedness in the mining and processing life cycle and to apply decision gates to each critical control point in the project life-cycle.

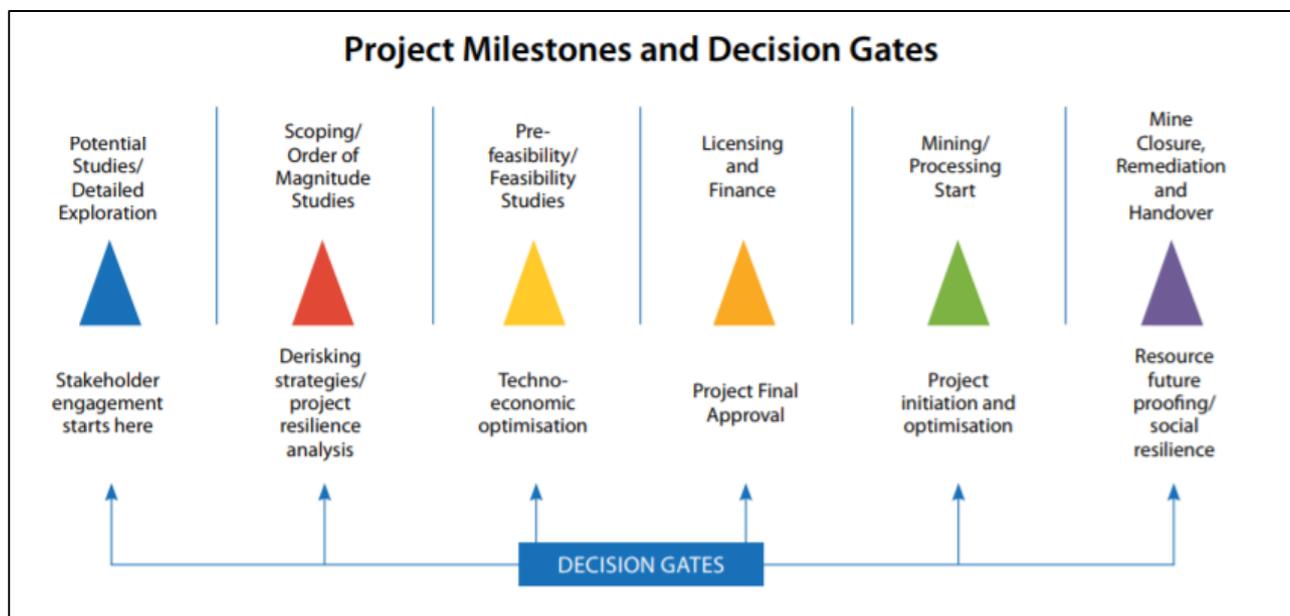


Figure B5 Project milestones and decision gates applicable to mining

Because the milestones are generic in nature the methodology can be used by a wide range of resource projects. Significant qualitative improvements and cost savings can be effected across a project life-cycle by focusing attention in a similar manner on a small group of control points. A particular feature of the method is the “one up/ one down” approach to project teamwork, communications and documentation in the life-cycle. The owners of and stakeholders in any given milestone shall have a good understanding of, and close working relationship with, their counterparts responsible for (a) the milestone that precedes theirs (“one up”) and (b) the one that follows theirs (“one down”). That way the risk of losing key institutional knowledge and project momentum between the stages in the project life-cycle is much reduced.

8.3.2. Value-addition

The African Mining Vision calls for down-stream linkages into mineral beneficiation and manufacturing; up-stream linkages into mining capital goods, consumables & services industries; and side-stream linkages into infrastructure (power, logistics, communications, water) and skills and technology development (HRD and R&D. The potential for value addition shall be carefully assessed and the information used while classifying the quantities, especially vis a vis the social, environmental and economic viability. Some of the possible social and environmental impediments could be transformed into opportunities when the value-addition possibilities are examined over the full life-cycle of a project.

Downstream value addition may involve the use of the locational advantage of producing crude resources to establish resource-processing industries (beneficiation) that could then provide the feedstock for manufacturing and industrialisation. Upstream value-addition could

use of the relatively large resources sector market to develop the resource supply/inputs sector (capital goods, consumables, services).

Mutually beneficial partnerships between the state, the private sector, civil society, local communities and other stakeholder should be fully examined while classifying the quantities and assigning them to appropriate AMREC classes.

8.3.3. Diversification

A resource sector that has become a key component of a diversified, vibrant and globally competitive industrialising African economy. A resource sector should be the pivot to establish a competitive African infrastructure platform, through the maximisation of its propulsive local and regional economic linkages. A resource sector that optimises and husbands Africa's finite mineral resource endowments and that is diversified, incorporating both high value and lower value resources at both commercial and small-scale levels is required by AMV. Towards this end, it is desirable to consider all social and economic linkages at a local and regional level should be analysed before classifying the resources using AMREC principles.

8.3.4. Resource progression

It is not enough that resources are properly classified and assigned to appropriate AMREC classes. The potential of the quantities to progress to higher E, F and G categories should be considered and recorded. Such information is essential for effective management decisions and planning of activities to see that projects progress in time and within budget from discovery or exploration stage to production and beyond (Figure B6). The progression of resources should be linked to project milestones and decision gates as well as the detailed studies required to advance through E, F and G axis.

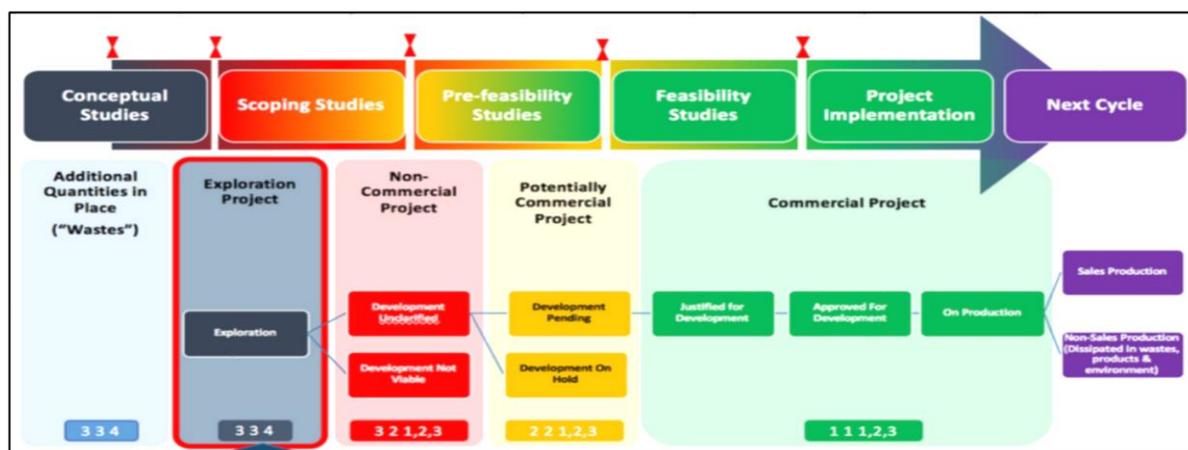


Figure B6 Resource progression model

8.3.5. Comprehensive resource recovery

The term "comprehensive resource recovery" describes methodologies that can maximize returns from mining and processing especially from low-grade, depleted and other non-commercial ore bodies. This has both opportunistic and sustainability aspects. On the opportunistic side, the nature of sedimentary basins containing energy materials is such that a number of different commodities are commonly collocated, such as uranium, phosphates,

rare earths elements, oil, gas, and coal. Managing these resources in an integrated, multi-target manner is likely to achieve considerably higher aggregate recovery rates than a management strategy that targets only a single resource and effectively treats all other resources as if they were contaminants or wastes.

On the sustainability side, the premise is simpler: once a decision is made to break ground, there is an ethical imperative to maximise the return from that activity in conformity with the well-established fundamentals of sustainable development. These fundamentals are driven by the need for each project to make a balanced contribution to food, energy and water (FEW) security. In consequence, there is a strong case for considering adherence to comprehensive production as in and of itself a sustainable development indicator.

Comprehensive resource recovery seeks to maximize the returns from mining by a strategic, long-term approach to resource production and processing rather than focusing on a single commodity. This has implications for the way resources are assessed, for the sequence in which they are mined and the methods by which they are produced. One outcome from the comprehensive approach is the emergence of concepts such as “energy basin management” where the potential of a sedimentary basin that might include coal, oil and gas, uranium, phosphates and rare earths are managed as a single complex group rather than as a competing set of target minerals.

In line with both the opportunistic and ethical drivers, comprehensive resource recovery has the following operational objectives:

- Disturb the ground only once during mining and production, optimizing returns from all the valuable materials in an ore body, not just a single target mineral.
Manage all valuable materials from a given site or resource, both individually and in combination, across the whole life-cycle.
- Integrate primary and secondary resource management for resource conservation and waste prevention.
- Foster flow-sheet modifications, and innovative, and if necessary, disruptive technologies and business to achieve sustained triple bottom line returns.
- Foster reuse, recycling and new product development (ie., from recycling tailings or residues) in line with the waste hierarchy.
- Leave zero waste at the end of the project life-cycle, thus eliminating long-term negative externalities.
- Base any mineral project life-cycle plan on finding the New Point of Equilibrium between the interests of Stockholders and Stakeholders, expressed in the form of a social licence and measured in TBL financial, social and environmental returns.
- Future-proof minerals through pro-active life-cycle management, including recovery and recycling, as a key sustainable development outcome.
- Build and sustain human resource capability (social capital) by net positive contribution to Food Energy and Water security (FEW); and education and training.

While undertaking AMREC based classification, the Evaluators may assess and report the possibilities of comprehensive resource recovery.

8.3.6. Recoverable quantities

All reported quantities under AMREC shall be limited to those quantities that are potentially recoverable on the basis of existing technology or technology currently under development, and are associated with actual or possible future exploration/development projects or mining operations.

8.3.7. Zero waste

In line with the principles of the waste hierarchy which are increasingly embedded in national and international law, the driving environmental expectation is now that at the end of the whole mining and processing cycle there should be zero waste. Applying this constraint constitutes a very significant challenge to the traditional mining and processing narrative, which is typically focused on a single mineral, such as uranium, or gold. Very commonly in both industries, the volume of tailings, or spoil or residues that may be generated in pursuit of the target mineral can by volume be vastly out of proportion to the target mineral itself.

8.4. Social and Environmental Considerations

This guidance is concerned with the social and environmental aspects of resource classification and does not address the following related and important factors:

- (a) The processes of resolving social and environmental issues that are encountered during the development of a project as it matures to implementation;
- (b) How social and environmental issues should be reported in a resource report;
- (c) The social or environmental merits, or otherwise, of resource development.

The E axis is concerned with “socio-environmental-economic” criteria for the classification of resources using AMREC. Although the mandate of the Task Force is to consider the social and environmental aspects and not the social-environmental-economic aspects of the E axis, it was necessary to address the latter to a limited extent, to distinguish them from the social and environmental aspects, and the impact that the latter may have on project socio-environmental-economics. The relationship of social and environmental factors to the F and G axes was also considered but not examined in detail

Resource evaluation and classification traditionally focused on the immediate production process, by considering measures such as a Net Present Value (NPV) while ignoring externalities such as social and environmental issues. An externality is described as:

“An externality is a cost or benefit resulting from an action that is borne or received by parties not directly participating in the action.”

Although there may not be agreement on what should be included, nor on whether the effect of an externality is positive or negative, social and environmental externalities have become an increasingly important factor in decisions on resource production projects, and hence on classification. What was previously considered an externality may now have become an internality that shall be resolved for a project to proceed. For classification under AMREC, it is recommended that only those externalities that directly impact the project that is being assessed should be considered.

The need to obtain local stakeholder approval and broader acceptance for a project to proceed is typically described as a requirement for “social licence” or “social licence to operate” (SLO), a concept that has attracted greater interest and attention in recent years.

There are varying “definitions” of “social licence”, and “social licence to operate”, but it essentially requires the resolution of any social and environmental issues that could inhibit or prevent a decision to proceed with a project. Social licence is a generic term that collects all the social and environmental issues relevant to a resource project under one heading, and although a useful informal term, it is not always clear what might be included. Because of its generic nature, “social licence” is not recommended as a classification criterion, which should be based on the individual contingencies that apply to a project.

There is a high degree of commonality in the social and environmental aspects of different types of resources, and the guidance provided here is intended to be relevant for all resources to which AMREC applies. However, there will also be issues that are specific to a resource or jurisdiction, in which case, reference should be made to the relevant resource-specific or jurisdictional guidance.

8.4.1. Zero harm

AMREC Evaluators should apply a mitigation hierarchy that prioritises efforts to avoid negative environmental and social impacts, followed by minimisation, then restoration, with offsetting as a last resort. Because there are often trade-offs among the economic, social and environmental impacts of resource development projects that need to be understood by decision makers, a ‘life-cycle’ approach needs to be taken.

Stronger mitigation measures should be applied if a project could impact key biodiversity areas, and impacts to all forms of protected areas, including sacred natural sites and territories and areas conserved by indigenous peoples and local communities, should be avoided.

8.4.2. AMREC E Axis

8.4.2.1. The relationship between social, environmental, and other factors

The E axis is labelled as “socio-environmental-economic” and combines these two aspects of resource classification. A project may meet all the requirements of the F and G axes and the socio-environmental-economic component of the E axis, but unless it is also socially and environmentally acceptable, it often cannot proceed.

The various factors involved in resource classification do not exist in isolation, and the distinction between them may not be clear. Some of the social and environmental factors that affect the E axis may also affect the F axis, such as ownership, contract terms, legal, regulatory issues, and in some cases, fiscal terms (taxes, royalties, etc.). A change or delay in the development costs of projects, due to social and environmental issues, can have a significant impact on the near-term financial value of a project, even making it no longer viable. Subsidies may allow an otherwise strictly economically unviable project to proceed as part of a social or environmental initiative.

8.4.2.2. Other guidance on social and environmental factors

There is considerable literature on social and environmental matters, mainly on how to address them when developing a project, but little that is related to classification. Most of these discuss social and environmental factors, but none contain significant guidance on classification. This is unlike the F and G axes, which are covered in considerable detail in resource-specific guidance and associated publications. The World Bank and the International Finance Corporation (IFC), must rate projects to assess their risk and

uncertainty before making loans. Although their publications do not classify projects in the same way as AMREC, they provide a useful view on social and environmental classification. The System of Environmental-Economic Accounting (SEEA) is managed by the Statistics Division of the United Nations Department of Economic and Social Affairs and refers to UNFC as the standard for energy classification. Although SEEA refers to environmental and social factors, it provides no significant guidance as to how they affect classification.

The evaluation and classification of resources according to AMREC assume that it is carried out by a person with an appropriate level of expertise. However, the assessment of social and environmental contingencies falls outside the historic resource evaluation and classification process and the expertise of most evaluators, and it will often be necessary to involve others with the appropriate expertise as part of the evaluation team to assess the social and environmental aspects of resource classification.

8.4.3. Guidance on E-axis social and environmental classification

8.4.3.1. Social and environmental classification criteria

Contingencies are conditions that shall be resolved before a project can proceed to the next stage of project maturity as it advances to execution. Assignment into one of the AMREC Categories or Sub-Categories depends on the probability that the relevant contingencies, including the social and environmental issues, that are required for a project to proceed will be resolved. While almost all projects involve social and environmental issues, they will not always be contingencies that would affect categorization. The discussion below focuses mainly on social and environmental issues that may be contingencies.

The removal of a contingency requires action by the relevant parties. Simple examples would be a sales contract that allows product sales, attainment of access to markets, or testing an exploration well to confirm that it could produce at social, environmental and economically viable rates. For social and environmental issues, it may require action such as the application for, or receipt of, regulatory approval, agreements to limit operations during periods of environmental sensitivity (e.g. limiting or curtailing wind power generation during bird migration or breeding).

Environmental and social contingencies can be considered under two headings:

- (a) Formal. Contingencies subject to formal legal and regulatory processes, such as the granting of environmental approval, approval to drill, explore, develop, or construct. Resolving these contingencies would generally lie within the control of an operator, partnership, or government. In this case, estimating the probability that a project will proceed with or without active engagement with stakeholder may be relatively straightforward, and in developed areas, regulatory approval may be a matter of routine and not considered to be a contingency;
- (b) Informal. Formal approval may not be sufficient to allow a project to proceed, since there may be obstacles to the implementation of a project that lies outside a formal process. The probability of the resolution of this type of contingency will usually be more difficult to assess, and it may lie beyond the control or influence of an asset owner or even a government. For example, concerns of local communities about the positive or negative impacts of a mineral recovery project on the community, or of organisations that would not be directly affected by a project and could involve

informal civil activity ranging from protests to violent action. These issues would typically be dealt with by discussion and negotiation between stakeholders, which could trigger further activity within a formal legal or regulatory setting. These are often referred to as Social Licence but could include force majeure due to civil unrest and war.

8.4.3.2. Steps in classification

The steps in the classification process include:

- (a) Identifying the relevant social and environmental contingencies;
- (b) Estimating the probability that social and environmental issues will be resolved and maintained over the life cycle of the project. This will depend on the specifics of a project and the legal, regulatory and social environment in which it is proposed to be carried out. When there is a history of similar project developments, they may be used as analogues. Although an assessment of the probability of resolving social, environmental and economic contingencies is likely to be subjective, it should be based as much as possible on a documented analysis;
- (c) Consideration of the level of activity needed and the status of this, to resolve social and environmental issues at the time of an evaluation and classification. This will depend on the project:
 - i. When no or only routine activity is required, social and environmental issues may not be a contingency;
 - ii. In other cases, a high level of effort and active engagement with stakeholders may be required over an extended period.
 - iii. Evidence of active engagement with stakeholders towards the resolution of social and environmental contingencies shall be based on substantial documentation, and would not be satisfied by an unsubstantiated claim or a token effort. The nature of this will depend on the project and on the social and environmental issues that are involved. It could include, for example, documented proof that an Environmental and Social Impact Assessment (ESIA) was being carried out or has been submitted for approval, that there are constructive discussions with interested parties, the establishment of training and other social programmes, etc.;
 - iv. Lack of active engagement with stakeholders in the resolution of social and environmental contingencies. The consequences of a lack of engagement will depend on the situation. In an established area with a history of resource development, project approval may be a matter of routine and require little or no effort. In other cases, it will result in a project not receiving approval and it being put on hold or abandoned.
 - v. Active engagement with stakeholders does not necessarily mean that this will lead to successful resolution of the contingencies. Similarly, a lack of engagement at the time of an evaluation does not necessarily mean that a project will be unable to proceed.

The following points should be noted:

- (a) The assessment of social and environmental factors for resource categorisation has not been common resource evaluation practice. Evaluators should ensure that they

- apply an appropriate level of expertise for an evaluation, which may require consulting with those who have such expertise;
- (b) Evaluation and classification can only be based on the information that is available at the time of the evaluation. Subsequent changes may require a re-evaluation and reclassification;
 - (c) An estimate of probability should be at a level needed to classify to a AMREC sub-category (e.g., the resource Category may be the same whether the probability is 60 per cent or 70 per cent). It does not necessarily require formal calculation or great precision, and subjective estimation of probability (at different levels of sophistication) will usually be more appropriate;
 - (d) The uncertainty associated with any estimate should be recognized;
 - (e) There will usually be multiple contingencies and the lowest ranking one should be assigned to the overall project classification, as illustrated in the example in the Table in Annex II;
 - (f) The method used to estimate a probability should be documented. This will be particularly important when the information is to be used for investment decisions or raising of funds for a project.

8.4.4. E-axis social, environmental and environmental categories and sub-categories

E-axis Categories and Sub-categories are summarized in the following text.

- (a) E1: Production and sale has been confirmed to be social, environmental and economically viable.
- (b) E2: Production and sale is expected to become socially, environmentally and economically viable in the foreseeable future.

Two Sub-categories are based on the probability of approval, a significant aspect of which is the effort directed towards resolving the relevant contingencies. The level of engagement required for their resolution depends on the project, the formal regulatory requirements and the informal situation regarding social and environmental issues. However, the activity does not automatically relate to the probability of approval. A high level of active stakeholder engagement could be tied to a low probability of approval, but in some cases, such as in a well-developed area with considerable prior, analogous, activity, there may be a high probability of approval because little, or only routine, activity is needed.

E2.1 Issues are yet to be resolved, but there is a high probability of their resolution evidenced by an active attempt to resolve all impediments (contingencies) with a high probability of success, a history of similar projects in the area, or other indications, within the foreseeable future.

E2.2 Issues are yet to be resolved, but there is either:

An active attempt to resolve all impediments (contingencies) with a medium probability of success, or;

No activity to resolve impediments but based on the characteristics of the project and previous history of similar projects in the area, or other supportive information there is a medium probability of their resolution within the foreseeable future.

The relationship of E2.1 and E2.2 to the Project Maturity sub-classes is discussed below, but it should be noted that it is not a simple one-to-one relationship.

- (c) E3: Production and sale is not expected to become socially, environmentally, and economically viable in the foreseeable future, or evaluation is at too early a stage to determine social, environmental economic viability

E3.1: No additional guidance

E3.2: Whether or not there is an active effort to resolve social, environmental and economic issues, the outcome is unknown or unclarified.

E3.3: Whether or not there is an active effort to obtain approval, the probability of receiving approval is less than medium and may be zero

Classification depends on the probability of resolving all relevant contingencies. Although the estimation of probabilities will be largely subjective, the percentages given below are based on studies of common usage of terms, such as “high probability”. When it is uncertain into which category a contingency would fall, the lower one should be selected.

For social and environmental contingencies, the probability of successful resolution depends on the significance of the issues and the level of activity needed for their resolution.

The criteria of Probability of Approval and the Level of Stakeholder Engagement are related and may be combined as follows:

- (a) Active Stakeholder Engagement with:

- High probability of approval (> 80 per cent)
- Medium probability of approval (50 – 80 per cent)
- Low (< 50 per cent), or unknown probability of approval.

- (b) No Active Stakeholder Engagement:

- High probability (> 80 per cent) of approval based on a demonstrated history of outcomes in analogous situations.
- Medium probability (50 – 80 per cent) of approval based on a demonstrated history of outcomes in analogous situations
- Low (< 50 per cent) or unknown probability of approval.

The application of the above to classification in AMREC is summarized in the Table B11.

Table B11 Categorisation based on Level of Stakeholder Engagement and Probability of Approval

Stakeholder Engagement	Active	Not Active
Probability of Approval		
High (> 80%)	E2.1	E2.2
Medium (50 – 80%)	E2.2	E3.3
Low (< 50%)	E3.3	

Stakeholder Engagement	Active	Not Active
Unknown or unclarified	E3.2	

This is not a requirement for a specific probability estimate, but for a determination of which range, < 50 per cent, 50 – 80 per cent or > 80 per cent, is appropriate. In most cases, this will be a qualitative, not a quantitative, estimate. When there is doubt, the lower probability should be assigned.

When determining the appropriate resource category, the evaluator should consider the significance of the social and environmental contingencies, the level of concern of regarding these issues by stakeholders and the activities, including the necessary level of engagement, between them that is required to resolve the issue.

8.5.5. Related contingencies

As noted above, other E-axis factors may be affected by social and environmental issues. The effect of these on classification is likely to vary between different operators and others with different Realms of Discourse. For example:

- (a) Ownership and regulatory Approval are unlikely to be factors for governments but will be significant for others;
- (b) The decision to commit to executing a project usually lies with an owner, not with a government.

This may result in different classifications for the same project. This is recognized in National Resource Management, although that focuses mainly on aggregation. They may include the following:

- (a) Legal framework. The right to produce and sell (or benefit) from a resource.
 - E3 if there is no legal right to produce and sell, as is the case for many exploration activities, and no negotiation or application in process.
 - E2 if the legal right to produce and sell is being negotiated but not finalized or is in dispute.
 - E1 if the legal right to produce and sell is established and not in dispute.
- (b) Regulatory approval. This is required for many aspects of production operations, ranging from major environmental approval to routine minor issues such as individual well abandonment approvals.
 - E3 if required but not applied for or applied for and not approved.
 - E2 if applied for but not yet received.
 - E1 if received or, located in areas and jurisdictions where there is an established history of approval indicates that approval can be expected.

Classification may be relatively straightforward for formal legal and regulatory processes since they have either:

- (a) Not been initiated (i.e., not been applied for);
- (b) Been initiated and in the process of being considered;
- (c) Been initiated and approval has not been granted;
- (d) Been approved.

Other E-axis non-economic factors mentioned in AMREC, for which classification may be less clear, include:

(a) Fiscal framework. The terms regarding taxes, royalties, production sharing, or other fiscal provisions under which production operations are carried out may be influenced by social and environmental considerations.

- E3 if not determined.
- E2 if it is being negotiated but not finalized, is in dispute, or there is uncertainty due to the possibility of a change that could affect the commercial viability of a project.
- E1 if established, not in dispute or uncertain, and allows a decision to implement a project to be made.

(b) Contractual conditions. These are specific to an asset or project, but may contain terms beyond those of the legal or fiscal framework (e.g., a requirement to use local labour, private sector contracts, lease expiry after a specific time, abandonment and reclamation obligations, etc.). A contract may not always be required, but if it is:

- E3 if it does not yet exist.
- E2 if they are being negotiated but not finalized, are in dispute, or there is uncertainty due to the possibility of a change that could affect the commercial viability of a project.
- E1 if established, not in dispute or uncertain in any manner, and is expected to be concluded with a high degree of certainty.

The contingencies relevant for a specific project will vary, and there may be others that are not listed previously. An environmental or social contingency that results in the delay of a project can have a major impact on the social, environmental and economic viability (e.g. a decrease in the discounted NPV) that may warrant a reclassification. Users of AMREC may elect to use attributes to distinguish between projects where the contingencies are within their control and where they are not. This may be done, for instance, to improve information to government or others of what the quantitative effects of changes in the framework conditions they control may be.

8.4.6. Project Maturity Sub-Classes

Project Maturity describes the current status of a project, but a project that is On Hold or Development Pending could have a probability of the resolution of the relevant issues that range from low to high but provides no indication of the probability that the relevant contingencies will be resolved.

8.4.7. Example of E-axis resource specific classification

The overall ranking shown in Table B12 is that of the lowest potential E Category.

Table B12 Example of E-axis resource specific classification

Issue / potential contingency	Level of engagement	Probability of approval	Potential E Category
Legal	Relevant licences	done	E1
Regulatory	Relevant permissions	granted	E1
Market access	Local use	99%	E1
Social	No objections expected	90%	E1
Economic	Project screened economic	95%	E1
Political	No worries expected	99%	E1
Internal & external approvals/commitments	Commitments made	100%	E1
Environmental	Licence approval in process. Issue with the black-rimmed beetle frog habitat	50%	E2
Timing (<5 years or>5 years)	<5 years	Uncertain (see environmental)	E2
Total = lowest ranking issue			E2

8.4.8. Social Responsiveness

Social factors are an important constraint, but could be also an opportunity to resource management. This section discusses the factors that should be assessed on the social issues, because they directly impact the project as they bring people together, facilitate agreements, help drive efforts in same direction and bridge the gap between what is and what should be.

8.4.9. Stakeholder mapping

Stakeholders may be divided into broad groups as follows:

- Resource providers (Operators)

- Local people around the resource – the power that a community has over individuals to behave in a particular way – may also influence the willingness of resource providers to adopt the management system
- Associations
- Legislators
- Policy Makers/ governments
- Financial People (stock markets, economists)
- Others (marketers, buyers, users, environmentalists,

Proposed stakeholder map with three different levels is suggested to clarify interface between governments/states and communities in their dealings with exploration or mining companies to avoid possible negative consequences

- Level 1 Project-affected communities
- Level 2 Businesses and commercial organizations
- Level 3 Governmental authorities and regulators

The stakeholder mapping should consider small scale and artisanal operations where applicable.

8.4.10. Stakeholder engagement

A stakeholder engagement should be in place from the start of the resource life-cycle and should be maintained throughout. The stakeholder engagement may involve

- Group discussions, meetings and workshops
- Networks
- News letters
- Social media

8.4.11. Agreements

Stakeholder agreements where appropriate should be done with the engagement of legal experts, regulators and policy maker. Attempts should be made to integrate ideas to demonstrate

- Interdependence
- Inclusiveness
- Interconnections (upward and backward linkages)
- Interlinkages
- Innovation

8.4.12. Assessments on changes in social systems

While undertaking AMREC based assessment, the Evaluators may consider the the gap between what is and what should be from a social responsiveness perspective and provide solutions to bridge this gap. This could include meeting the provisions of AMV, GMIS, Agenda 2030, Agenda 2063 and the reality. The AMREC Evaluators also need to consider the potential changes foreseen in the social systems, especial with regard to population growth and conflicts that may rise due to sharing of limited resources. Social Impact Assessment as part of ESIA deliverables should include a discussion regarding the same.

Some of the tools for bridging the gap could include

- Education and training
- Tools and instruments to measure SDGs indicators
- Social recognition
- Demonstrations and field days
- Social Leadership programs

The power of the community is in its social capital, which can increase the range of knowledge, skills, expertise, and support available to individuals involved in resource development. The social capital has a major role in increasing their capacity to implement sustainable resource development.

Keeping communities informed and facilitating the growth of trust shall be an important component of resource development. Building the trust can involve aspects, including, but not limited to

- Access to professional advice to reliable information
- Local knowledge (indigenous and ethnic people)
- Appropriate information, advice and solutions

8.4.13. Social institutions

Social infrastructure and services such as water supply, electricity, waste disposal, education and health facilities in the project neighbourhood should be considered in an AMREC assessment. Other social institutions may include

- Local decision-making institutions
- Cultural heritage - Careful attention should be paid to avoid such areas
- Local conflict of interests
- Water usage or water rights and communal rights
- Health and wellbeing including incidence of infectious diseases such as HIV/AIDS

8.4.14. Human rights

Human rights are rights inherent to all human beings, regardless of race, sex, nationality, ethnicity, language, religion, or any other status. Human rights include the right to life and liberty, freedom from slavery and torture, freedom of opinion and expression, the right to work and education, and many more. Everyone is entitled to these rights, without discrimination.

International human rights law⁵³ lays down the obligations of Governments to act in certain ways or to refrain from certain acts, in order to promote and protect human rights and fundamental freedoms of individuals or groups.

The Universal Declaration of Human Rights (UDHR)⁵⁴ is a milestone document in the history of human rights. The Declaration was proclaimed by the United Nations General Assembly in Paris on 10 December 1948 by General Assembly resolution 217 A (III) as a common standard of achievements for all peoples and all nations. It sets out, for the first time, fundamental human rights to be universally protected.

⁵³The Foundation of International Human Rights Law <https://www.un.org/en/sections/universal-declaration/foundation-international-human-rights-law/index.html>

⁵⁴ The Universal Declaration of Human Rights <https://www.un.org/en/universal-declaration-human-rights/index.html>

The UDHR, together with the International Covenant on Civil and Political Rights⁵⁵ and its two Optional Protocols (on the complaints procedure and on the death penalty) and the International Covenant on Economic, Social and Cultural Rights and its Optional Protocol, form the so-called International Bill of Human Rights⁵⁶.

8.4.15. Rights of Workers

The United Nations Declaration of Human Rights, which is the basis of the International Covenant on Economic, Social and Cultural Rights (article 6-8) reads as follows:

Article 23

- Everyone has the right to work, to free choice of employment, to just and favorable conditions of work and to protection against unemployment.
- Everyone, without any discrimination, has the right to equal pay for equal work.
- Everyone who works has the right to just and favourable remuneration ensuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection.
- Everyone has the right to form and to join trade unions for the protection of his/her interests.

Article 24

- Everyone has the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay.

Identified by the ILO in the 'Declaration of the Fundamental Principles and Rights at Work,[2] core labour standards are:

- Freedom of association: workers are able to join trade unions that are independent of government and employer influence;
- The right to collective bargaining: workers may negotiate with employers collectively, as opposed to individually;
- The prohibition of all forms of forced labour: includes security from prison labour and slavery, and prevents workers from being forced to work under duress;
- Elimination of the worst forms of child labour: implementing a minimum working age and certain working condition requirements for children;
- Non-discrimination in employment : equal pay for equal work.

8.4.16. Rights of Women

The Universal Declaration of Human Rights, adopted in 1948, enshrines "the equal rights of men and women", and addressed both the equality and equity issues. In 1979, the United Nations General Assembly adopted the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) for legal implementation of the Declaration on the Elimination of Discrimination against Women⁵⁷. Described as an international bill of rights for women, it came into force on 3 September 1981.

⁵⁵ International Covenant on Civil and Political Rights <https://www.ohchr.org/en/professionalinterest/pages/ccpr.aspx>

⁵⁶ <https://www.ohchr.org/Documents/Publications/Compilation1.1.en.pdf> THE INTERNATIONAL BILL OF HUMAN RIGHTS

⁵⁷ See Convention on the Elimination of All Forms of Discrimination against Women and its Optional Protocol: Handbook for Parliamentarians http://archive.ipu.org/PDF/publications/cedaw_en.pdf

The Convention defines discrimination against women in the following terms:

Any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field.

It also establishes an agenda of action for putting an end to sex-based discrimination for which states ratifying the Convention are required to enshrine gender equality into their domestic legislation, repeal all discriminatory provisions in their laws, and enact new provisions to guard against discrimination against women. They must also establish tribunals and public institutions to guarantee women effective protection against discrimination and take steps to eliminate all forms of discrimination practiced against women by individuals, organizations, and enterprises.

8.4.17. Rights of Children

The 1989 Convention on the Rights of the Child (CRC)⁵⁸ defines a child as "any human being below the age of eighteen years, unless under the law applicable to the child, majority is attained earlier."

Children's rights includes their right to association with both parents, human identity as well as the basic needs for physical protection, food, universal state-paid education, health care, and criminal laws appropriate for the age and development of the child, equal protection of the child's civil rights, and freedom from discrimination on the basis of the child's race, gender, sexual orientation, gender identity, national origin, religion, disability, color, ethnicity, or other characteristics. Interpretations of children's rights range from allowing children the capacity for autonomous action to the enforcement of children being physically, mentally and emotionally free from abuse, though what constitutes "abuse" is a matter of debate. Other definitions include the rights to care and nurturing.

8.4.18. Rights of local populations local communities

Resource development can also have complex social impacts related to displacement, land rights, cultural heritage, indigenous peoples, gender equality, employment, public health, safety and security, sexual exploitation and abuse, and other issues. Rights-based social safeguards, inclusive dialogue and risk management principles should be applied to resource development projects to ensure that it benefits the poor, leaves no one behind, and respects human rights. Chief among these is the need for inclusive, participatory, transparent, and ongoing stakeholder consultation to be built into infrastructure planning processes. Resource project development should be based on free, prior and informed consent, in line with the UN Declaration on the Rights of Indigenous Peoples⁵⁹.

8.4.19. Age consideration issues

As stage in life can be important constraint in resource management, this may be considered for project implementers. For example, the less than 30 years age group are generally

⁵⁸ Convention on the Rights of the Child <https://www.ohchr.org/en/professionalinterest/pages/crc.aspx>

⁵⁹ United Nations Declaration on the Rights of Indigenous Peoples, <https://www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html>

known as having family commitments and debt and may have a bearing on how they impact a project.

8.4.20. Site remediation and financial guarantees

When resource development and production ceases in a site, the site should be resorted to acceptable conditions for other use and handed over to the appropriate authority. All development plans should have a remediation plan from the before it is approved, and the start of the operation.

Preferably, remediation actions of a site may be carried out in parallel as operations proceed, so that the entire activity should not be postponed to the very end. Previous experiences have demonstrated that progressive remediation is cost effective and more robust.

The operator should commit the necessary financial guarantees for remediation of the site, which may be revised on a periodical basis depending on the remediation that is required after the anticipated close of the operations.

8.5. Commercial guidelines

Commercial assessments are about the likely availability and value of future production. This may vary between stakeholders depending on whether costs and revenues are shared equally or not. The difference between commercial assessments of projects and of the assets defining stakeholder interests in projects will be explained in more detail in the section on commercial assessments of assets. The future production is certainly not measurable (yet) nor provable.

Uncertainties can be estimated using deterministic or probabilistic methods.

AMREC supports commercial assessments based on an uncertainty evaluated using either deterministic or probabilistic methods (or combination thereof). The choice will depend on:

- (a) The application of the commercial assessment
- (b) The need, preference and/or capability of the user
- (c) The information available to the preparer.

Assuming that projects have been classified according to project maturity, estimation of associated recoverable quantities under a defined project and assignment to uncertainty categories may be based on one or a combination of analytical procedures. Such procedures may be applied using an incremental and/or scenario approach; moreover, the method of assessing relative uncertainty in these estimates of recoverable quantities may employ both deterministic and probabilistic methods.

8.5.1. Assessments of commercial supplies

AMREC inventories show the commercial product quantities. These are quantities of production that will be available for purchase and sale from projects that will be carried out. In other words, their projects have no contingencies in the economic, social and environmental domain (category E1) and no contingencies with respect to technical execution (F1) that will stop them from proceeding. Although there will be no blocking contingencies in these domains, commercial assessments will still need to consider

uncertainties arising from market conditions, changes in the framework conditions, operational changes, etc.

The quantities to be produced are categorised according to the level with which they have been defined in categories G1, G2 and G3, alternatively as G1 quantities, G1+G2 quantities and G1+G2+G3 quantities. For petroleum and when probabilistic estimation is done, G1 represents a high level of confidence as having at least a 90% probability (P90) that the quantities recovered will equal or exceed the estimate. G1+G2 represents a moderate level of confidence near the expected (mean) value with at least a 50% probability (P50) that the actual quantities recovered will equal or exceed the estimate. For the high estimate of G1+G2+G3 this probability should be equal or greater than 10% (P10). Deterministic estimates will strive to have the same levels of confidence as is defined for probabilistic estimates.

8.5.2. Commercial assessments of assets

In addition to selling and buying commercial quantities, it is common to sell, buy or trade the rights to produce these quantities. These rights are defined here as assets and are distinguished from the projects that AMREC classifies. The relationship between the asset and the project is defined by the legal, regulatory, fiscal and contractual conditions contained in the definition of the rights. The values attached to these rights are not limited to the value of the commercial production that is referred to above, but relates to the entire resource base, i.e. in all AMREC classes.

The rights may be defined in terms of quantities as is the case when fixed royalties are imposed. They will more often than not be defined in terms of the cash flow that the projects may produce. Assessment of the commerciality of the assets will therefore in general require consideration of the project information that defines the cash flows including quantities to be produced, time series of revenue, investment, operating costs, taxes, fees, tariffs, physical and human inputs, emissions and other information carried by the projects. Then the rules embedded in the rights define the corresponding time series for the assets, i.e. how they and the risks involved are distributed to stakeholders, including government. This information is not generally publicly available. Some users may have access to it while other sophisticated users may be able to understand the general nature and quantification from available information in the AMREC inventories of quantities and other related observations available to them. Depending on the nature of the rules defining an asset, the asset holder may find that the class of hers or his asset may differ from the class of the project i.e. a project that is acceptable to government may not necessarily be acceptable to all licensees.

Below is a non-exhaustive list of where commercial assessments of assets are used:

- (a) in resource management considerations;
- (b) in fiscal and contractual design;
- (c) in capital allocation, project development and commodity transaction, including valuation;
- (d) in asset transactions;
- (e) in portfolio optimization;

- (f) in public and financial reporting.

8.5.3. Fiscal and contractual designs

Fiscal and contractual designs determine, together with market values and costs, the perceived value of the produced commodity at the point of valuation (reference point), typically the point of sale or the point where a netback price may be assessed. This is the value, that together with the costs of bringing quantities to the reference point, govern the value at the source of production and thereby the recovery decisions. The lower the value at source, the lower the commercial recoverable quantities will be. Many recovery processes are physically irreversible processes, i.e. the total outcome depends on the history of recovery. Failures of initial recovery decisions to design for the recovery of economically marginal quantities (that can be very large) cannot be repaired by later efforts, at least not without additional cost and effort relative to what could be achieved if the quantities were targeted for recovery from the start. A prerequisite for efficient recovery is therefore a high perceived value at source, facilitated by time stable fiscal and contractual designs that do not harvest economic rent downstream or act as costs in reducing the value at source.

Fiscal and contractual designs might cause the value of the commodity produced not to be the same for all stakeholders, including governments.

This causes misalignment of interest that may be an impediment for reaching balanced decisions for the recovery of the commodity seen from a project perspective.

The fiscal design to produce a given value to government may in itself affect the quantities that the producer can afford to extract and have an effect on the way quantities are classified. One extreme is a situation where only gross taxes are applied (royalty, production fees, etc.) that will cause the value at the source of production, and the potentially recoverable quantities to differ seen by the payer and receiver of gross taxes. The other extreme is where the taxes have been designed not to distort incentives and where the public and private sector interests in pursuing recovery will be aligned and equal to what they would be for a project with only one stakeholder.

When there is full alignment of interests, and ignoring portfolio effects, the stakeholders may categorise their assets on the E-axis in the same way. When there is not full alignment this may not be the case.

8.5.4. Capital allocation, project development and commodity transactions

There are at least three parts to project and asset economics involving commercial transactions:

- Allocation of capital to development and production activities
- Selling of the commodity produced including valuation
- Managing the opportunities and risks associated with the above.

As was the case with fiscal and contractual design, the analyses require access to the project information. This allows one to see the project and asset perspectives. Both may affect the appropriate project and asset decisions and thereby the appropriate E and F categories of the projects and the assets.

Allocation of capital may take place at the project or asset level or as a combination of the two. It will generally depend on the technical shaping of the project or development process and on the position of the stakeholders. The F-categories reflect the project maturity decisions in this respect. Allocation of capital will also depend on the availability and cost of capital. Project finance will depend on the business model of the project, while asset finance may in addition depend on the financial position of the asset holder. If capital is not available at satisfactory conditions, the project cannot be categorised as E1 and will therefore not be a commercial project for one or all asset holders in the project.

Future produced quantities, project development and commercial value are all associated with uncertainty. Risks and opportunities represent the consequences of uncertainty, often quantified as the probability that an uncertain outcome will occur times the consequence this will have. The consequence is always to someone and therefore inherently subjective.

Uncertainties may be combined probabilistically to help in capital allocation by determining the ranges of resources or values.

Different views of the future are some of the factors driving capital allocation as well as asset transactions that are described next.

Opportunities and risks for the project, the asset or the asset holders may play a role in shaping the decisions. The asset holders may not have, or wish to, develop the capabilities required to proceed. The asset holder may see higher value in selling the asset or may wish to hold on to it without developing it for strategic reasons or no reason at all as discussed in the chapter on portfolio optimisation below. The appropriate category to use in the classification is always dependent on what is done, not what should be done. Firstly, this reflects the physical realities, and is therefore valuable for users. Secondly, it separates classification from decision making, making classification easier relative to the much more difficult task of decision making.

8.5.5. Asset transaction

There are at least three types of asset transactions in which the AMREC may be applied:

- Asset trades and swaps
- Mergers of projects and/or assets including agreements for joint development of multiple assets and unitization
- Asset acquisition and divestment.

These transactions refer to value in one form of another.

8.5.5.1. Asset trades and swaps

Asset trades and swaps may involve resource quantities of all classes. Here, commercial assessments of trades may be based on estimated recoverable resource quantities or quantities in place adjusted for obvious differences in value. Trades may be guided by other similar transactions observed in the market. Detailed cash flow analyses are often not available for some of these assets due to lack of sufficient project definition.

Resource quantities with categories E3, F3 and F4 fall in this category.

Trades and swaps of assets with sufficiently mature projects to define cash flows are guided by the estimated cash flows.

8.5.5.2. Mergers of assets including agreements for joint development of multiple assets and unitization

Mergers (or the joining) of two or more assets to form a new asset is quite natural when the value of the new asset is higher than the sum of the values of the merged assets. It is also natural to merge assets when misalignment of interests in individual assets represents an impediment to efficient and fair asset development.

Several assets may, for instance be combined to utilise a joint infrastructure where the new asset takes full advantage of this and exploits the combined asset as a unit.

Combining several assets is common when they have overlapping legal rights that cause misalignment of interests (unitisation). This is the case for oil and gas fields that cover two or more licenses and where the quantities in one can be produced from another.

To achieve an efficient resource management, it is important that the allocation of value from the new asset to the initial asset holders is done through mechanisms that are not affected by the way development and production takes place. An example is the use of initial quantities in place to allocate value. Allocation of value between the initial asset holders may be based on information that becomes better defined as development and production proceeds. This causes the agreement governing the new asset to contain clauses on the redistribution of asset ownership, including future production, cost and reallocation of past costs as new information becomes available. The AMREC holds the relevant resource quantities used for redetermination of future production, and the project information holds the cash flow information required for cash adjustments and distribution of future costs. Past costs are found in the accounts.

8.5.5.3. Asset acquisition and divestment

Asset and company transactions involve asset trades as described above as well as commercial transactions involving cash, shares, etc.

Examples are companies who prefer to specialize in capabilities required for one part of the value chain. This can be exploration, development, production operations, tail end production or abandonment. These companies seek opportunities in their segment where they can do better than the seller or seek to exit their segment when they have done what they are best at and have improved the asset value accordingly.

In the context of AMREC, the project information and the terms and conditions governing the assets are again key for determining the values, risks and opportunities for seller and buyers. If the partners to the transaction agree on making a cash transfer, then it is necessary to aggregate the asset values of the projects involved in the transaction to assess what a reasonable price will be. This requires valuing and aggregating assets in immature projects. It is sometimes not possible to do this, as movement from one category to another may be both a chance, with an estimated probability of occurrence that can be estimated, but also a decision that may need to be negotiated. Whether it is a chance, or a decision depends on the role of the evaluator. Aggregation of resource quantities for projects or assets with an equivalent chance of being realised, indicated by them having the same E and F categories is possible depending on whether the uncertainties indicated through the G-categories are discrete estimates, scenario estimates or probability density functions with information on dependencies and correlations between assets. As should happen with all

simulations/estimates, all assumptions need to be exposed so that the outcome can be tested.

Aggregation of uncertain time series for production and sales, costs, cash flows etc. is complex. For instance, a production forecast can reflect delays in start-up but high production later. It will be a low forecast in early years and high one in later years and cannot be described as a high or low forecast without taking time into account. A way to work around this is to describe the forecasts by using scalar quantities such as start-up dates, build up rates, production capacity, production rates at various levels of cumulative production, recoverable quantities etc. where the range of uncertainty of each of these scalars can be described using probability density functions. They are then used together through mathematical equations using a Monte Carlo type simulation to produce alternative production profiles. Both simple closed form solutions and/or elaborated numerical simulations of the development and production processes can be used. From this it is possible to generate a field of forecasts (a swarm) that can be used to generate a probability density functions for scalar project information of interest such as net present value, cumulative sales, non-sales production over a given time period, etc. These probability density functions can in turn be aggregated using a second Monte Carlo simulation or more sophisticated methods like Global Optimization, taking into account the dependencies and correlations of the key uncertainties.

8.5.6. Portfolio optimisation

The value of a portfolio depends on the nature, size, number and characteristics of its elements. In portfolio optimisation, the optimiser can, within the limits that agreements with others allow include or exclude elements from the portfolio, change their magnitude and timing, shape their dependencies and influence their uncertainties, in search for an optimal portfolio. What an optimal portfolio is depends on the interests and constraints of the optimiser. It may be a portfolio that maximises value for a certain amount of risk, but also one that produces manageable opportunities and risks, that can meet commitments, respect financial constraints, provide full employment of people and equipment, fill infrastructure capacities, minimise waste, etc.

AMREC with the underlying project information may be used as a key instrument in portfolio optimisation. Portfolio optimisation may in turn impact the commercial value it holds for the owner of the portfolio or for a buyer of it.

8.5.7. Public reporting, including corporate and financial reporting

Public reporting can be on a supranational, national, regional, project, company or asset level. It invariably requires a high professional quality of estimates at a frequency and an aggregation level where numbers are reasonably stable over time and estimated in a transparent and auditable manner for the public to use.

Reporting resource quantities at the project level and at the level of aggregated projects does not necessarily require going into project information. The AMREC inventories display the quantities directly. The reporting should be done using the instructions provided in Part C PARC of this document.

8.5.8. Appropriation

Appropriation answers the question on who owns the resource quantities and how the cash flows are shared, and depends on the fiscal and contractual conditions.

8.5.9. Allocation

Allocation is regarding who owns (or benefits from) the produced quantities? This is generally governed by how the cash flows are shared and depends on the fiscal and contractual conditions. This must be handled outside the classification, but in conjunction with for instance partners' financial reports.

When purchased quantities are being produced together with those recovered from the estimated quantities initially in place (the indigenous quantities), then there is a need for an accounting procedure to calculate the remaining project quantities. The most reasonable convention is Last In First Out (LIFO). This reflects that the purchased quantities are acquired and stored, while the indigenous quantities are uncertain resources to be extracted. The Last in First Out (LIFO) principle will in practice assign the uncertainty to the indigenous quantities.

8.5.10. Valuation

Commercial assessments are strongly linked to valuation. Project valuation is typically required internally by entities for future investment and operation. It is also required for selling or buying an asset. Asset valuation could be a complex process that requires a careful consideration of the assumptions and methodologies applied. Depending on the type of asset and available information, different methods can be used for valuation. Analysis of net present value of a discounted cash flow (DCF) is typically one of them. All future cash flows are estimated and discounted using a discount rate to give their net present value. Aspects to consider in valuation beyond the cash flows are what discount rate to use for a project or an asset. It will always reflect the time value of money. It may also be used as a blunt instrument to account for the risk of projects underperforming. Alternatively, the risks and opportunities may be accounted for as real options associated with the cash flow.

Commercial assessments may require an assessment of:

- Time distributed future costs and revenues, and thereby of produced quantities
- Uncertainties in these costs and revenues
- Future framework conditions distributing costs and revenues to stakeholders (assets) including government
- Uncertainties in future frameworks, including but not limited to policy measures enforced to reach the SDGs and climate ambitions. In particular, the effects of imposing a sufficient greenhouse gas cost to limit emissions to tolerable levels may need to be considered.

Project values may be observed from accounts in the case of past projects, from transactions, or from forecasts of future cash flows.

Valuation may help determine the appropriate category to use for a project. Project values may be observed from accounts in the case of past projects, from transactions, or from forecasts of future cash flows. Of these, valuation based on forecasts is the most complex,

but also the most common. Forecasts are often based on financial accounting methods that integrate historical price developments and current market trends; however, they can also be supported by systems analysis methodologies such as Dynamic Material Flow Analysis.

The net present value (NPV) of future cash flows is a common measure of value. It can be written using continuous variables:

$$NPV = \int_{t=0}^{\infty} (1 + r_c)^{-t} \cdot v(t) dt \quad (1)$$

Where:

r_c is the continuously compounded discount factor⁶⁰; and

$v(t)$ is the rate of expected cash flow over time t .

Assuming that the project is of average risk and that project owners are financed by institutions constituting a well-diversified capital market – or at least can choose to be, the appropriate discount factor at which NPV is maximized for these institutions include a risk premium similar to that applying to the financial market as a whole (stock market plus bond market). In this formulation, the cash flows should reflect the actual risk and opportunities arising from the uncertainties associated with the project (Laughton, Gurrero, & Lessard, 2008) by taking their values directly into the $v(t)$, the cash flow in period t . The appropriate risk premium on the discount factor may be chosen to be higher for projects near break-even.

Contingent projects can then be valued as follows:

$$NPV_p = NPV_s \times P_s + NPV_f \times (1 - P_s)$$

Where:

NPV_p is the project value.

NPV_s is the success value, i.e. the value given that the contingency is removed.

P_s is the probability that the contingency will be removed, and the project will succeed.

NPV_f the failure value, i.e. the value given that the contingency will eliminate the project. It will generally be the negative value of the costs up to the abandonment of the project.

$(1 - P_s)$ is the probability that the project will fail.

If the value NPV_p of the contingent project is satisfactory relative to for instance the net present value that alternative use of funds will yield, it is reasonable to assume that activities to remove the contingencies will proceed and the project can remain with the original

⁶⁰ There is a one-to-one relation between the continuously compounded discount factor and discount factors compounded over at fixed time periods, say annually. The formula for the NPV when discounted over fixed periods is:

$$NPV = \sum_{i=1}^t \frac{V(i)}{(1+r)^i}$$

Where NPV is the net present value of forecasted cash flows;

i is the number of the time period (year number i);

$V(i)$ is the value element (cost or revenue) in period i ;

r is the discount factor per period i .

t is the total number of time periods

category. If the NPVp is not positive enough, then the project may have been assigned too high a category and should be considered for degrading.

8.5.11. Accounting

Material balance is preserved when the classification is applied to the recovery of non-renewable quantities.

The estimated total quantities initially in place will equal the sum of the quantities:

- produced and sold
- produced and not sold
- To be produced and sold in the future
- To be produced and not sold in the future
- Not produced due to project abandonment or non-realization
- Remaining in place after production

Quantities that are produced, but not sold (e.g flared gas) should be accounted.

8.6. National resource management

National resource inventory management requires aggregation of information generated by all the resource projects in a country. This national inventory could aid the strategic policy formulation and put in place appropriate regulations. Regulatory requirements for periodic reporting by operators in a country should be through the AMREC system. Such a national inventory should also be integrated to the GMIS.

At a government level, national resource estimates may be based on an aggregation of reported or published corporate and other estimates for individual projects. However, such estimates may not cover all known or potential resources in the country. Furthermore, where government organizations have a responsibility for developing resource estimates at a regional or national level, the estimates may be different from corporate estimates on an individual project basis. In such cases, regional or national inventory estimates using AMREC shall be derived using an appropriate methodology based on the nature and extent of available data. In accordance with Generic Specification G, the aggregation methodology shall be mentioned.

When classifying aggregated estimates using AMREC, it is mandatory that the relevant Numerical Codes for the individual Classes are mentioned. For example, it may be useful at a national level to determine the sum of estimated quantities for Commercial Projects and Potentially Commercial Projects at a “best estimate” level, though it is preferred that the breakdown by Class is also provided.

8.7. Public Disclosure

Disclosure of information on initial and recoverable quantities is made subject to laws, regulations and contractual commitments. Public reporting can be on a supranational, national, regional, project, company or asset level. It invariably requires a high professional quality of estimates at a frequency and an aggregation level where numbers are reasonably stable over time and estimated in a transparent and auditable manner for the public to use.

AMREC provides the rules and guidelines for public disclosure through Part C - Pan-African Reserves and Resources Reporting Code (PARC).

The PARC compliant report should draw numbers from a central inventory and track the disclosures made by the information owner in an effort to keep the conversations about the resources as factual as possible.

PART C - PAN-AFRICAN RESERVES AND RESOURCES REPORTING CODE (PARC)

1. Introduction

The Pan-African Reserves and Resources Reporting Code (PARC), is the AMREC based code for public reporting for resources under relevant financial and security regulations in Africa. The fundamental purpose of PARC is to support stockholder as well as stakeholder confidence and ensure that in alignment to the Africa Mining Vision and Agenda 2063, good social, environmental and economic benefits are assured for Africa.

The relevant constituency that PARC addresses include investors (stockholders) and stakeholders such as communities, governments, operators, professional bodies etc.

Resource reporting under PARC shall be based on the available internal AMREC inventory. Only the AMREC classes and sub-classes, with their numerical codes as mentioned for each Product Type (minerals, petroleum, renewable energy) in this document, shall be used for Public Reporting. Other AMREC classes meant for internal uses should not be used for Public Reporting

The AMREC Working Group recognises that further reviews and revisions of PARC may be required. Additional information, rules, lists and best-practice guidelines will be published on the AMREC website from time to time, after due process has been followed.

2. Scope

The main principles governing the operation and application of PARC are good social, environmental and economic benefits as called for in the African Mining Vision including transparency, materiality and competence.

Reference in PARC to a Public Report or Public Reporting refers to any report on projects, prepared for the purpose of informing investors or potential investors and their advisers, or to satisfy regulatory requirements.

Estimation of quantities is inherently subject to some level of uncertainty and inaccuracy. The uncertainty in the estimates should be discussed in documentation and, where material, in Public Reports, and reflected in the appropriate choice of categories.

PARC is applicable to:

- Minerals (See PART C Section 6)
- Petroleum (See PART C Section 7)
- Renewable energy resources (See PART C Section 8).

3. Public Reports

PARC will apply to any information on resources that a company make available to the public.

Public Reports are reports prepared for the purpose of informing investors or potential investors and their advisers on projects. They include, but are not limited to, annual and quarterly company reports, press releases, information memoranda, technical papers, website postings and public presentations.

PARC applies to other publicly released company information in the form of postings on company web sites, press releases and briefings for shareholders, stockbrokers and investment analysts. PARC also applies to any reports that have been prepared for the purposes such as environmental statements; Information Memoranda; Expert Reports, and technical papers referring to projects.

4. Benefits, materiality and transparency

4.1. Good social, environmental and economic benefits

A Public Report should contain all the relevant information on how the project will address the social and environmental impacts and contribute to eco-system benefits that is called for in the Agenda 2063, African Mining Vision and Sustainable Development Goals.

4.2. Transparency

Transparency requires that the reader of a Public Report is provided with sufficient information, the presentation of which is clear and unambiguous, so as to understand the report and not to be misled.

4.3. Materiality

Materiality requires that a Public Report contains all the relevant information which investors and their professional advisers would reasonably require, and reasonably expect to find in a Public Report, for the purpose of making a reasoned and balanced judgement regarding the quantities being reported.

4.4. Competency

Competency requires that the Public Report be based on work that is the responsibility of suitably qualified and experienced persons who are subject to an enforceable professional code of ethics and rules of conduct.

5. Competence and responsibility in public reporting

5.1. Competent Person

A Competent Person is one who has the ability to put skills, knowledge and experience into practice in order to perform activities or a job in an effective and efficient manner for resource classification, management and reporting.

Classification, management and reporting of resources may be a team effort involving several technical disciplines. In the case of a team effort, it is recommended that there is a clear division of responsibility in a team where each Competent Person and his or her contribution should be identified and responsibility accepted for their particular contribution. If a single Competent Person accepts responsibility for the whole of the documentation, he

or she should be satisfied that the supporting work prepared in whole or part by others is acceptable.

The full name, affiliation, education and experience of the Competent Person providing the estimation should be disclosed. If a group is performing the actions, each member of the group should satisfy all the generic requirements and the specific requirements of the sector for which the person is responsible. All members of the group should disclose their full name, affiliation, education and experience and indicate which specific part of the reporting they are responsible for.

5.2. Competent Person requirements

Competency requirements are differentiated as:

- (a) Core values that influences a competent person's action and choices
- (b) Generic competencies, which are applicable for any sector for which resource reporting is carried out, such as petroleum, minerals, uranium, renewables (geothermal, bioenergy, solar, wind, hydro and others), injection projects, and anthropogenic resources; and
- (c) Specific functional competencies, which are applicable to the particular sector for which reporting is carried out.

5.3. Core values

Principles that influence a competent person's actions and choices in connection with resource reporting are:

- African values: Should demonstrate in-depth knowledge of Africa Mining Vision (AMV), Agenda 2063 and the 2030 Agenda for Sustainable Development.
- Integrity: Should demonstrate the values of impartiality, fairness, honesty and truthfulness, in daily activities and behaviours. Takes prompt action in cases of unprofessional or unethical behaviour.
- Professionalism: Should demonstrate skill, good judgment and mastery of the subject matter.
- Care for the Environment: Should have commitment to protect the environment and preserve the earth's natural resources, both for today and for generations into the future.
- Respect for Diversity: Should have commitment to respect for gender justice and diversity such as race/ethnicity, culture, language, gender, age, sexual orientation or expression, religion and disability.

5.4. Generic requirements

The generic requirements for a Competent Person are listed below:

- (a) *Single Person or Group*: Competent Person may be a single person or a team of experts with different backgrounds performing resource management functions. For complex projects where knowledge in different areas are required, reporting should be performed by a team of Competent Persons, each having appropriate education, experience and continuous training in relevant areas.
- (b) *Disclosure*: The full name, affiliation, education and experience of the Competent Person providing the evaluation should be disclosed. If a group is performing the

- actions, each member of the group should satisfy all the generic requirements and the specific requirements of the sector for which the person is responsible. All members of the group should disclose their full name, affiliation, education and experience and indicate which specific part of the reporting they are responsible for.
- (c) *Responsibility*: The responsibility of the reporting should in all cases rest on the organization or entity reporting the quantities or volumes.
 - (d) *Education*: A Competent Person should have undergone a managed process of individual learning at a university or academic institution which provides basic knowledge that underpins the science, technology and socio-environmental-economics of the sectors for which quantity or volume assessment is being carried out. At a minimum, a Competent Person should have a relevant tertiary degree.
 - (e) *Experience*: A Competent Person should have a minimum of five years of relevant experience in resource management functions or activities for the specific technical discipline in the sector for which the resource evaluation and reporting is being carried out.
 - (f) *Continuous Training*: A Competent Person should undergo Continuous Professional Development (CPD). This is a managed process that is focused on the continuous development of specialized knowledge needed to meet resource management functions.
 - (g) *Licences*: A Competent Person should hold appropriate licences issued by a competent authority if required in the jurisdiction in which he or she is reporting.
 - (h) *Professional body affiliation*: For the purpose of public reporting, a Competent Person should be affiliated with a professional body or association with an enforceable code of ethics and performance expectations. The list of professional bodies associations recognized for reporting under PARC is provided in Annexure 1. As the list may be revised periodically by the AMREC Secretariat, please refer to the latest version available at the AMREC website.[URL to be provided].
 - (i) *General guidance*: Persons being called upon to act as a Competent Person should be clearly satisfied in their minds that they could face their peers and demonstrate competence in the particular activity and sector under consideration. Should doubt exist, the person should seek opinions from appropriately experienced colleagues or should decline to act as a Competent Person.

5.5. Governance

Competent Person and disclosure requirements shall be governed by the AMREC Secretariat at the African Union Commission.

6. Minerals Reporting

6.1. Introduction

Public Reports shall only use the terms set out in Figure 1.

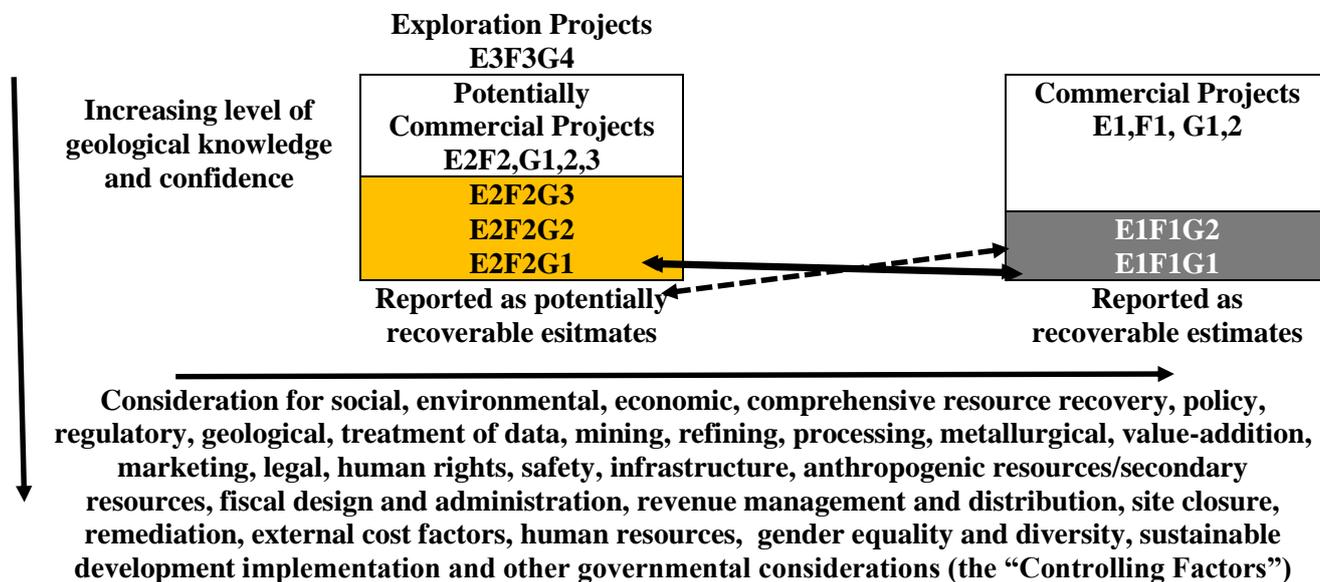


Figure C1 PARC reporting classes for minerals

Figure C1 sets out the framework for classifying tonnage and grade estimates so as to reflect different levels of geoscientific confidence and different degrees of technical, social, environmental and economic evaluation. Quantities associated with Potential Commercial Projects (E2F2G1,2,3) in minerals can be estimated on the basis of geoscientific information with some input from other relevant disciplines. Quantities associated with Commercial Projects (E1F1G1,2) require consideration of the Controlling Factors affecting production.

E2F2G1 quantities may convert to either E1F1G1 quantities or E1F1G2 if there are uncertainties associated with Controlling Factors that are taken into account in the conversion from Potentially Commercial Projects to Commercial Projects. The broken arrow in Figure C1 demonstrates this relationship. Although the trend of the broken arrow includes a vertical component, it does not, in this instance, imply a reduction in the level of geoscientific knowledge or confidence. In such a situation these Controlling Factors shall be fully explained.

The term ‘Controlling Factors’ is defined to include social, environmental, economic, comprehensive resource recovery, policy, regulatory, treatment of data, mining, refining, processing, metallurgical, value-addition, marketing, legal, human rights, safety, infrastructure, anthropogenic resources/secondary resources, fiscal design and administration, revenue management and distribution, site closure, remediation, external cost factors, human resources, gender equality and diversity, sustainable development implementation and other governmental considerations.

6.2. General

Public Reporting concerning a company's Exploration Projects, Potentially Commercial Projects and Commercial Projects shall include a description of the style and nature of mineralisation.

A company shall disclose relevant information concerning the status and characteristics of a mineral deposit that could materially influence the social, environmental and economic value of the deposit and promptly report any material changes in its Exploration Projects, Potentially Commercial Projects and Commercial Projects.

Throughout PARC, where appropriate, 'quality' may be substituted for 'grade' while 'volume' may be substituted for 'tonnage'. In the Code, any reference to the singular shall include a reference to the plural, where appropriate.

6.3. Exploration Projects

Exploration Projects (E3F3G4) include data and information generated by mineral exploration programmes that might be of use to investors but which do not form part of a declaration of Potentially Commercial Projects and Commercial Projects.

Estimates of quantities associated with an Exploration Project may be provided. It is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade or quality, relates to mineralisation for which there has been insufficient exploration to estimate Potentially Commercial Projects.

Estimates of quantities shall be always declared as ranges of estimates and never be done as single estimates. The range should always be at the minimum +/- 50 percent of the estimated mean value.

Quantities associated with Exploration Projects shall not be part of a formal declaration of quantities associated Potentially Commercial Projects and Commercial Projects and shall not be presented in a way that unreasonably implies the discovery of potentially socially, environmentally and economic viable quantities.

Exploration Projects shall include relevant data and information relating to the mineral property – both positive and negative.

Exploration data and information may include survey, geological, geophysical, geochemical, sampling, drilling, trenching, analytical testing, assaying, mineralogical, metallurgical and other information, where available. At least some physical evidence of assumed continuity of the mineralisation of socio-environmental-economic interest on the property of interest shall be presented by the Competent Person.

Historical data and information may also be included if, in the considered opinion of the Competent Person, it is relevant and reliable, giving reasons for such conclusions.

The data and information may be derived from adjacent or nearby properties if the Competent Person can provide justification of continuity for such an association. The actual data and/or information shall be appropriately described and presented where not already in the public domain.

A company may comment on and discuss the qualities associated Exploration Project in terms of size and type. However, any such comment in a Public Report shall comply with the following requirements:

- An quantities associated with Exploration Project is related a concept of mineralisation with respect to type, quantity and quality, which would be of interest to an exploration or mining company. There shall be a likelihood that this quantities occurs in an area of geological prospectivity for that specific mineral and mineralisation type. An Exploration Project may not represent any discovered mineralisation of socio-environmental-economic, nor does it imply reasonable prospects for possible social, environmental and economically viable production.
- Any such information relating to an Exploration Project shall, however, be expressed so that it cannot be misrepresented or misconstrued as an estimate of quantities associated with a Potentially Commercial Project or a Commercial Project. The terms Potentially Commercial Project or a Commercial Project shall not be used in this context. Details of the Exploration Project should not appear in any tabulation of Potentially Commercial Project or a Commercial Project or be included in a Scoping Study, Pre-Feasibility or Feasibility study.

Any statement referring to potential quantity, quality and content, as appropriate for a Exploration Project shall be substantiated and include a detailed explanation of the basis for the statement and a proximate statement, with the same prominence, that the potential quantity, quality and content, as appropriate, are conceptual in nature, that there has been insufficient exploration to define a Potentially Commercial Project and that it is uncertain if further exploration could result in the determination of a Potentially Commercial Project.

A cautionary statement shall not be by way of a footnote and a general disclaimer elsewhere in the disclosure document shall not satisfy this requirement.

Where the statement includes information relating to ranges of tonnages and grades these shall be represented as approximations. The explanatory text shall include a description of the process used to determine the grade and tonnage ranges used to describe the quantities associated with Exploration Project.

Given the level of uncertainty surrounding the supporting data, the tonnage or grade of quantities associated with Exploration Projects, these shall not be reported as a 'headline statement' in a Public Report.

If mineralization associated with a Exploration Project is shown pictorially (for instance as cross-sections or maps) or with a graph, it shall be accompanied by text that meets the requirements above.

A Public Report that includes an Exploration Project shall be accompanied by a Competent Person's statement taking responsibility for the form and context in which the Exploration Project appears in the Report.

6.4. Potentially Commercial Projects

Quantities associated with a Potentially Commercial Project (E2F2G1,2,3) is a concentration or occurrence of material of social, environmental and economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for

eventual social, environmental and economically viable production. The location, quantity, grade, continuity and other geological characteristics of the quantities associated with a Potentially Commercial Project are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

Quantities associated with a Potentially Commercial Project are subdivided, and shall be so reported, in order of increasing confidence in respect of geoscientific evidence, into E2F2G3, E2F2G2 or E2F2G1 sub-categories.

Any quantities that does not have demonstrated reasonable prospects for eventual social, environmental and economically viable production shall not be included in a Potentially Commercial Project. The Competent Person shall disclose and discuss the parameters used to support the concept of 'eventual'.

Geological evidence and knowledge required for the estimation of quantities associated with a Potentially Commercial Project shall include sampling data of a type, and at spacings, appropriate to the geological, chemical, physical, and mineralogical complexity of the mineral occurrence, for all sub-classifications of E2F2G3, E2F2G2 or E2F2G1 quantities.

Quantities associated with a Potentially Commercial Project cannot be estimated in the absence of sampling information.

For each sub-class of quantities associated with a Potentially Commercial Project, the basis of classification shall be disclosed (Table C1).

E2F2G3 quantities

E2F2G3 quantities are that part of the quantities associated with a Potentially Commercial Project for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. E2F2G3 quantities have a lower level of confidence than that applying to an E2F2G2 quantities and shall not be converted to a Commercial Project. It is reasonably expected that the majority of E2F2G3 quantities could be upgraded to E2F2G2 quantities with continued exploration.

Where the quantities being reported is predominantly an E2F2G3, sufficient supporting information shall be provided to enable the reader to evaluate and assess the risk associated with the reported quantities associated with a Potentially Commercial Project.

E2F2G3 quantities may be based on interpolation between widely spaced data where there is reason to expect geological continuity of mineralisation of socio-environmental-economic interest. The extent of extrapolation outside of the nominal drill or sampling grid spacing shall be justified. The report shall contain sufficient information to inform the reader of:

- The maximum distance that the quantities associated with a Potentially Commercial Project is extrapolated beyond the sample points;
- The proportion of the quantities associated with a Potentially Commercial Project that is based on extrapolated data;

- The basis on which the quantities associated with a Potentially Commercial Project is extrapolated to these limits; and
- A diagrammatic representation of the E2F2G3 quantities showing clearly the extrapolated part of the estimated quantities associated with a Potentially Commercial Project.

It is accepted that mine design and planning may include a proportion of E2F2G3 quantities. If this sub-class is considered in mine design, mine planning or socio-environmental-economic studies, the results of which are publicly reported, full disclosure shall be made and the effect on the results of the studies shall be stated. E2F2G3 quantities may be included in mine design, mine planning and socio-environmental-economic studies only if a mine plan exists and a statement of Commercial Project that states that E2F2G3 quantities have been used. Where a material amount of mining in the mine plan includes E2F2G3 quantities, a comparison of the results with and without these E2F2G3 quantities shall be shown, and the rationale behind their inclusion shall be explained.

Controlling Factors and assumptions that were applied to the E2F2G2 and E2F2G1 quantities associated with a Potentially Commercial Project to determine the quantities associated with a Commercial Project shall be equally applied to the E2F2G3 quantities if included in the Life of Mine Plan.

E2F2G3 quantities cannot be converted to Commercial Projects and shall not be stated as part of the quantities associated with Commercial Projects.

E2F2G2 quantities

The quantities associated with a E2F2G2 sub-class is that part of the quantities associated with Potentially Commercial Project for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Controlling Factors in sufficient detail to support mine planning and evaluation of the socio-environmental-economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.

E2F2G1 quantities

The quantities associated with a E2F2G1 is that part of a Commercial Project for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Controlling Factors to support detailed mine planning and final evaluation of the socio-environmental-economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. E2F2G1 quantities have a higher level of confidence than that applying to either E2F2G2 or E2F2G3 quantities. It may be converted to E1F1G1 or to a E2F2G2 quantities.

Depending upon the level of confidence in the various Controlling Factors it may be converted to a E1F1G1 sub-class (high confidence in Controlling Factors), E1F1G2 sub-class (some uncertainty in Controlling Factors) or may not be converted at all (low or no confidence in some of the Controlling Factors; or no plan to mine, e.g. pillars in an underground mine or outside socio-environmental-economic pit limits).

The Competent Person responsible for the Resource estimate shall determine the appropriate Commercial Project sub-class based upon the quantity, distribution and quality of data available and the level of confidence attached to the data with reference to Table C1. The method of determining these confidence levels shall be disclosed.

The statement of quantities associated with the Potentially Commercial Project is a summary report, with key assumptions used in their derivation as per the guidelines in Table 1. Details regarding Exploration Projects shall not be included in Potentially Commercial Project statements.

Public Reports of Potentially Commercial Projects shall specify one or more of the sub-classes of E2F2G1, E2F2G2, E2F2G3. Reports shall not contain Potentially Commercial Project information combining two or more of the sub-classes unless information for the individual categories is also provided.

Quantities associated with Potentially Commercial Projects shall not be aggregated with that of Commercial Project. Inclusive reporting of Commercial Projects, that is, reporting quantities of Commercial Project to be inclusive of Potentially Commercial Project is not permitted in PARC.

The quantities associated with a Potentially Commercial shall not be reported in terms of contained mineral content (or metal equivalents) unless corresponding tonnages and grades of individual elements (and recoveries) are also reported.

Reports and statements shall continue to refer to the appropriate sub-class or sub-classes of Potentially Commercial Project until technical feasibility and social, environmental and economic viability have been established. If re-evaluation indicates that the Commercial Project is no longer viable, the quantities shall be reclassified as Potentially Commercial Project or removed from Potentially Commercial Project/Commercial Project statements.

Estimates of quantities associated Potentially Commercial Project are not precise calculations, being dependent on the interpretation of limited information about the location, shape and continuity of the occurrence and on the available sampling results.

6.5. Commercial Projects

Quantities associated with Commercial Project is the socially, environmentally and economically viable part of a E2F2G2 and/or E2F2G1 subclass of a Potentially Commercial Project. It includes diluting materials and allowances for losses, which may occur when the material is mined or produced and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Controlling Factors. Such studies demonstrate that, at the time of reporting, production could reasonably be justified. The reference point at which Commercial Projects are defined, usually the point where the ore is delivered to the processing plant, shall be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.

Quantities associated with a Commercial Project are reported as inclusive of diluting and contaminating material delivered for treatment or dispatched from the mine without treatment. To avoid confusion in reporting Commercial Project, the definition of treatment is taken to include any beneficiation of the raw product that might take place before or during

the metallurgical process. For clarity, tonnages and grades of saleable product may be reported for certain product types, with clear descriptions indicating such.

E1F1G2 quantities

Quantities associated with E1F1G2 sub-class is the socio-environmental-economic mineable part of an E2F2G2, and in some circumstances, E2F2G1 sub-class. The confidence in the Controlling Factors applying to a E1G1G2 sub-class is lower than that applying to a E1F1G1 sub-class.

E1F1G1 quantities

E1F1G1 sub-class is the socio-environmental-economic mineable part of E2F2G1 sub-class. E1F1G1 implies a high degree of confidence in the Controlling Factors.

The classification of quantities associated with a Commercial Project is governed by the relevant level of confidence of the Potentially Commercial Project and the Controlling Factors, and shall be made by the Competent Person.

Estimates of quantities of Commercial Project are not precise calculations, and tonnages and grades shall be expressed so as to convey the order of accuracy of the estimates by rounding off to appropriately significant figures.

Public Reports of Commercial Project shall not contain combined E1F1G1 and E1F1G2 unless the relevant information for each of the sub-class is also provided. Reports shall not present mineral contents unless corresponding tonnages and grades are given.

When revised Potentially Commercial Project and Commercial Project statements are publicly reported, they shall be reconciled with previous statements. A detailed account of differences between the figures is not essential, but sufficient comment shall be made to enable material variances to be understood by the reader.

In situations in which quantities associated with both Potentially Commercial Projects and Commercial Projects are reported, the Public Report shall not report Potentially Commercial Projects inclusive of Commercial Projects.

The above clauses apply equally to low-grade mineralization of socio-economic-environmental interest, often intended for stockpiling and treatment towards the end of the life of the mine.

If some portion of stope-fill or stockpile, residue or low grade stockpiles, remnants, pillars and tailings is currently not socially, environmentally and economically viable, but there is a reasonable expectation that it will become socially, environmentally and economically viable, then this material may be classified as a Potentially Commercial Project. If technical and social, environmental and economic studies have demonstrated that social, environmental and economically viable production could be reasonably justified under realistically assumed conditions, then the material may be classified as a Commercial Project.

If there are no reasonable prospects for the socially, environmentally and economically viable production of a particular portion of the above-mentioned material, then this material cannot be classified as either Potentially Commercial Project or a Commercial Project.

Mineralized remnants, shaft pillars and mining pillars that are not potentially mineable shall not be included in Potentially Commercial Project and Commercial Project statements.

For clarity of understanding, the tonnage and grade estimates of such material shall be itemized separately as Potentially Commercial Projects or Commercial Projects in Public Reports, although they may be aggregated in total Potentially Commercial Project and Commercial Project.

6.6. Technical Studies

A mining project typically passes through exploration, Potentially Commercial Project estimation and design phases; each of which involves rapidly escalating levels of investment. Each phase requires an increasing level of socio-environmental-economic and technical assessment with increasing levels of confidence for the project design, scheduling, costs and risks; to justify progression of the project to the next investment level.

A Scoping Study is an order of magnitude technical and socio-environmental-economic study of the potential viability of Potentially Commercial Project that includes appropriate assessments of realistically assumed Controlling Factors together with any other relevant operational factors that are necessary to demonstrate at the time of reporting that progress to a Pre-Feasibility Study can be reasonably justified.

A Pre-Feasibility Study is a comprehensive study of a range of options for the technical and socio-environmental-economic viability of a mineral project that has advanced to a stage where a preferred mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, is established and an effective method of mineral processing is determined. It includes a financial analysis based on reasonable assumptions on the Controlling Factors and the evaluation of any other relevant factors which are sufficient for a Competent Person, acting reasonably, to determine if all or part of the quantities associated with a Potentially Commercial Project may be converted to a Commercial Project at the time of reporting. A Pre-Feasibility Study is at a lower confidence level than a Feasibility Study.

A Feasibility Study is a comprehensive technical and socio-environmental-economic study of the selected development option for a mineral project that includes appropriately detailed assessments of applicable Controlling Factors together with any other relevant operational factors and detailed financial analysis that are necessary to demonstrate at the time of reporting that production is reasonably justified (socially, environmentally and economically viable). The results of the study may reasonably serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project. The confidence level of the study will be higher than that of a Pre-Feasibility Study.

Table C1 is applicable to all declarations in terms of the requirements of PARC. Table C1 is a high-level checklist of reporting and assessment criteria to be used as a reference by those preparing reports on Exploration Projects, Potentially Commercial Projects and Commercial Projects.

In the context of complying with the principles of the PARC, comment on the relevant sections of Table C1 shall be provided on an 'if not, why not' basis within the Competent Person's Report and shall be provided where required according to the specific requirements of sections 6.1, 6.4 and 6.5. This is to ensure that it is clear to the reader

whether items have been considered and deemed to be of low consequence or have yet to be addressed or resolved.

Social, environmental, and economic viability, transparency, competency and materiality are overriding principles that determine what information should be publicly reported. The Competent Person shall provide sufficient comment on all matters that might materially affect a reader's understanding or interpretation of the results or estimates being reported.

The order and grouping of criteria in Table C1 reflect the normal systematic approach to exploration and evaluation. The table shall be approached from left to right. In other words, criteria in the first column, Exploration Projects, shall be considered to apply also when reporting Potentially Commercial Projects and Commercial Projects. Similarly, additional criteria in the Potentially Commercial Projects column apply also to Commercial Projects reporting. Some criteria apply to only Exploration Projects, Potentially Commercial Projects or Commercial Projects.

PARC reports shall identify the units of measure, currency and relevant exchange rates.

TABLE C1: Checklist of reporting and assessment criteria to be used as a reference by those preparing reports on Exploration Projects, Potentially Commercial

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 1: Project Outline				
1.1	Property Description	(i)	Brief description of the scope of project (i.e. whether in preliminary sampling, advanced exploration, scoping, pre-feasibility, or feasibility phase, Life of Mine plan for an ongoing mining operation or closure).	
		(ii)	Describe (noting any conditions that may affect possible prospecting/mining activities) topography, elevation, drainage, fauna and flora, the means and ease of access to the property, the proximity of the property to a population centre, and the nature of transport, the climate, known associated climatic risks and the length of the operating season and to the extent relevant to the mineral project, the sufficiency of surface rights for mining operations including the availability and sources of power, water, mining personnel, potential tailings storage areas, potential waste disposal areas, heap leach pad areas, and potential processing plant sites.	
		(iii)	Specify the details of the personal inspection on the property by each CP or, if applicable, the reason why a personal inspection has not been completed.	
1.2	Location	(i)	Description of location and map (country, province, and closest town/city, coordinate systems and ranges, etc.).	
		(ii)	Country Profile: describe information pertaining to the project host country that is pertinent to the project, including relevant applicable legislation, environmental and social context etc. Assess, at a high level, relevant technical, environmental, social, economic, political and other key risks.	
		(iii)	Provide a general topocadastral map	Provide a Topo-cadastral map in sufficient detail to support the assessment of eventual socio-environmental-economics. State the known associated climatic risks.
1.3	Adjacent Properties	(i)	Discuss details of relevant adjacent properties If adjacent or nearby properties have an important bearing on the report, then their location and common mineralized structures should be included on the maps. Reference all information used from other sources.	
1.4	History	(i)	State historical background to the project and adjacent areas concerned, including known results of previous exploration and mining activities (type, amount, quantity and development work), previous ownership and changes thereto.	

Projects and Commercial Projects.

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 1: Project Outline				
1.4	History	(ii)	Present details of previous successes or failures with reasons why the project may now be considered potentially socio-environmental-economic.	
		(iii)		Discuss known or existing historical Potentially Commercial Projects estimates and performance statistics on actual production for past and current operations.
		(iv)		Discuss known or existing historical Commercial Project estimates and performance statistics on actual production for past and current operations.
1.5	Legal Aspects and Permitting	Confirm the legal tenure to the satisfaction of the Competent Person, including a description of the following:		
		(i)	Discuss the nature of the issuer's rights (e.g. prospecting and/or mining) and the right to use the surface of the properties to which these rights relate. Disclose the date of expiry and other relevant details.	
		(ii)	Present the principal terms and conditions of all existing agreements, and details of those still to be obtained, (such as, but not limited to, concessions, partnerships, joint ventures, access rights, leases, historical and cultural sites, wilderness or national park and environmental settings, royalties, consents, permission, permits or authorizations).	
		(iii)	Present the security of the tenure held at the time of reporting or that is reasonably expected to be granted in the future along with any known impediments to obtaining the right to operate in the area. State details of applications that have been made.	
		(iv)	Provide a statement of any legal proceedings for example; land claims, that may have an influence on the rights to prospect or mine for minerals, or an appropriate negative statement.	
		(v)	Provide a statement relating to governmental/statutory requirements and permits as may be required, have been applied for, approved or can be reasonably be expected to be obtained.	
1.6	Royalties	(i)	Describe the royalties that are payable in respect of each property.	

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 1: Project Outline				
1.7	Liabilities	(i)	Describe any liabilities, including rehabilitation guarantees that are pertinent to the project. Provide a description of the rehabilitation liability, including, but not limited to, legislative requirements, assumptions and limitations.	

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 2: Geological Setting, Deposit, mineralization of socio-environmental-economic interest				
2.1	Geological Setting, Deposit, of socio—environmental-economic-mineralisation	(i)	Describe the regional geology.	
		(ii)	Describe the project geology including deposit type, geological setting and style of mineralization.	
		(iii)	Discuss the geological model or concepts being applied in the investigation and on the basis of which the exploration program is planned. Describe the inferences made from this model.	
		(iv)	Discuss data density, distribution and reliability and whether the quality and quantity of information are sufficient to support statements, made or inferred, concerning the Exploration Project.	
		(v)	Discuss the significant minerals present in the deposit, their frequency, size and other characteristics. Includes minor and gangue minerals where these will have an effect on the processing steps. Indicate the variability of each important mineral within the deposit.	
		(vi)	Describe the significant mineralized zones encountered on the property, including a summary of the surrounding rock types, relevant geological controls, and the length, width, depth, and continuity of the mineralization, together with a description of the type, character, and distribution of the mineralization	
		(vii)	Confirm that reliable geological models and / or maps and cross sections that support interpretations exist.	

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 3: Exploration and Drilling, Sampling Techniques and Data				
3.1	Exploration	(i)	Describe the data acquisition or exploration techniques and the nature, level of detail, and confidence in the geological data used (i.e. geological observations, remote sensing results, stratigraphy, lithology, structure, alteration, mineralization, hydrology, geophysical, geochemical, petrography, mineralogy, geochronology, bulk density, potential deleterious or contaminating substances, geotechnical and rock characteristics, moisture content, bulk samples etc.). Confirm that data sets include all relevant metadata, such as unique sample number, sample mass, collection date, spatial location etc.	
		(ii)	Identify and comment on the primary data elements (observation and measurements) used for the project and describe the management and verification of these data or the database. This should describe the following relevant processes: acquisition (capture or transfer), validation, integration, control, storage, retrieval and backup processes. It is assumed that data are stored digitally but hand-printed tables with well-organized data and information may also constitute a database.	
		(iii)	Acknowledge and appraise data from other parties and reference all data and information used from other sources.	
		(iv)	Clearly distinguish between data / information from the property under discussion and that derived from surrounding properties	
		(v)	Describe the survey methods, techniques and expected accuracies of data. Specify the grid system used.	
		(vi)	Discuss whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the estimation procedure(s) and classifications applied.	
		(vii)	Present representative models and / or maps and cross sections or other two- or three-dimensional illustrations of results, showing location of samples, accurate drill-hole collar positions, down-hole surveys, exploration pits, underground workings, relevant geological data, etc	
		(viii)	Report the relationships between mineralization widths and intercept lengths. The geometry of the mineralization with respect to the drill hole angle is particularly important. If it is not known and only the down-hole lengths are reported, confirm it with a clear statement to this effect (e.g. 'down-hole length, true width not known').	
3.2	Drilling Techniques	(i)	Present the type of drilling undertaken (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Banka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 3: Exploration and Drilling, Sampling Techniques and Data				
3.2	Drilling Techniques	(ii)	Describe whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Potentially Commercial Project estimation, technical studies, mining studies and metallurgical studies.	
		(iii)	Describe whether logging is qualitative or quantitative in nature; indicate if core photography. (or costean, channel, etc) was undertaken	
		(iv)	Present the total length and percentage of the relevant intersections logged.	
		(v)	Results of any downhole surveys of the drill hole to be discussed.	
3.3	Sample method, collection, capture and storage	(i)	Describe the nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	
		(ii)	Describe the sampling processes, including sub-sampling stages to maximize representivity of samples. This should include whether sample sizes are appropriate to the grain size of the material being sampled. Indicate whether sample compositing has been applied.	
		(iii)	Appropriately describe each data set (e.g. geology, grade, density, quality, diamond breakage, geo-metallurgical characteristics etc.), sample type, sample-size selection and collection methods	
		(iv)	Report the geometry of the mineralisation with respect to the drill-hole angle. State whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. State if the intersection angle is not known and only the downhole lengths are reported.	
		(v)	Describe retention policy and storage of physical samples (e.g. core, sample reject, etc.)	
		(vi)	Describe the method of recording and assessing core and chip sample recoveries and results assessed, measures taken to maximise sample recovery and ensure representative nature of the samples and whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 3: Exploration and Drilling, Sampling Techniques and Data				
3.3	Sample method, collection, capture and storage	(vii)	If a drill-core sample is taken, state whether it was split or sawn and whether quarter, half or full core was submitted for analysis. If a non-core sample, state whether the sample was riffled, tube sampled, rotary split etc. and whether it was sampled wet or dry.	
3.4	Sample Preparation and Analysis	(i)	Identify the laboratory(s) and state the accreditation status and Registration Number of the laboratory or provide a statement that the laboratories are not accredited.	
		(ii)	Identify the analytical method. Discuss the nature, quality and appropriateness of the assaying and laboratory processes and procedures used and whether the technique is considered partial or total.	
		(iii)	Describe the process and method used for sample preparation, sub-sampling and size reduction, and likelihood of inadequate or non representative samples (i.e. improper size reduction, contamination, screen sizes, granulometry, mass balance, etc.)	
3.5	Sampling Governance	(i)	Discuss the governance of the sampling campaign and process, to ensure quality and representivity of samples and data, such as sample recovery, high grading, selective losses or contamination, core/hole diameter, internal and external QA/QC, and any other factors that may have resulted in or identified sample bias.	
		(ii)	Describe the measures taken to ensure sample security and the Chain of Custody.	
		(iii)	Describe the validation procedures used to ensure the integrity of the data, e.g. transcription, input or other errors, between its initial collection and its future use for modelling (e.g. geology, grade, density, etc.)	
		(iv)	Describe the audit process and frequency (including dates of these audits) and disclose any material risks identified.	
3.6	Quality Control/Quality Assurance	(i)	Demonstrate that adequate field sampling process verification techniques (QA/QC) have been applied, e.g. the level of duplicates, blanks, reference material standards, process audits, analysis, etc. If indirect methods of measurement were used (e.g. geophysical methods), these should be described, with attention given to the confidence of interpretation.	

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 3: Exploration and Drilling, Sampling Techniques and Data				
3.7	Bulk Density	(i)	Describe the method of bulk density determination with reference to the frequency of measurements, the size, nature and representativeness of the samples.	
		(ii)	If target tonnage ranges are reported state the preliminary estimates or basis of assumptions made for bulk density.	
		(iii)	Discuss the representivity of bulk density samples of the material for which a grade range is reported.	
		(iv)	Discuss the adequacy of the methods of bulk density determination for bulk material with special reference to accounting for void spaces (vugs, porosity etc.), moisture and differences between rock and alteration zones within the deposit.	
3.8	Bulk-Sampling and/or trial-mining	(i)	Indicate the location of individual samples (including map).	
		(ii)	Describe the size of samples, spacing/density of samples recovered and whether sample sizes and distribution are appropriate to the grain size of the material being sampled.	
		(iii)	Describe the method of mining and treatment.	
		(iv)	Indicate the degree to which the samples are representative of the various types and styles of mineralisation and the mineral deposit as a whole.	

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 4: Estimation and Reporting of Exploration Projects and Potentially Commercial Projects				
4.1	Geological model and interpretation	(i)	Describe the geological model, construction technique and assumptions that forms the basis for the Exploration Projects or Potentially Commercial Project estimate. Discuss the sufficiency of data density to assure continuity of mineralisation and geology and provide an adequate basis for the estimation and classification procedures applied.	
		(ii)	Describe the nature, detail and reliability of geological information with which lithological, structural, mineralogical, alteration or other geological, geotechnical and geo-metallurgical characteristics were recorded.	
		(iii)	Describe any obvious geological, mining, metallurgical, environmental, social, infrastructural, legal and economic factors that could have a significant effect on the prospects of any possible exploration target or deposit.	
		(iv)		Discuss all known geological data that could materially influence the estimated quantity and quality of the Mineral Resource.
		(v)		Discuss whether consideration was given to alternative interpretations or models and their possible effect (or potential risk) if any, on the Potentially Commercial Project estimate.
		(vi)		Discuss geological discounts (e.g. magnitude, per reef, domain, etc.), applied in the model, whether applied to mineralized and / or un-mineralized material (e.g. potholes, faults, dykes, etc).
4.2	Estimation and modelling techniques	(i)	Describe in detail the estimation techniques and assumptions used to determine the grade and tonnage ranges.	

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 4: Estimation and Reporting of Exploration Projects and Potentially Commercial Projects				
4.2	Estimation and modelling techniques	(ii)		Discuss the nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values (cutting or capping), compositing (including by length and/or density), domaining, sample spacing, estimation unit size (block size), selective mining units, interpolation parameters and maximum distance of extrapolation from data points.
		(iii)		Describe assumptions and justification of correlations made between variables.
		(iv)		Provide details of any relevant specialized computer program (software) used, with the version number, together with the estimation parameters used.
		(v)		State the processes of checking and validation, the comparison of model information to sample data and use of reconciliation data, and whether the Potentially Commercial Project estimate takes account of such information.
		(vi)		Describe the assumptions made regarding the estimation of any co-products, by-products or deleterious elements.
4.3	Reasonable and realistic prospects for eventual socio-environmental-economic production	(i)		Disclose and discuss the geological parameters. These would include (but not be limited to) volume / tonnage, grade and value / quality estimates, cut-off grades, strip ratios, upper- and lower- screen sizes.
		(ii)		Disclose and discuss the engineering parameters. These would include mining method, dilution, processing, geotechnical, geohydraulic and metallurgical) parameters.
		(iii)		Disclose and discuss the infrastructure, including, but not limited to, power, water, site- access.
		(iv)		Disclose and discuss the legal, governmental, permitting, statutory parameters.
		(v)		Disclose and discuss the environmental and social (or community) parameters.
		(vi)		Disclose and discuss the marketing parameters.

TABLE C1					
		Exploration Projects		Potentially Commercial Projects	Commercial Projects
Section 4: Estimation and Reporting of Exploration Projects and Potentially Commercial Projects					
4.3	Reasonable and realistic prospects for eventual socio-environmental-economic production	(vii)		Disclose and discuss the socio-environmental-economic assumptions and parameters. These factors will include, but not limited to, commodity prices and potential capital and operating costs	
		(viii)		Discuss any material risks	
		(ix)		Discuss the parameters used to support the concept of "eventual"	
4.4	Classification Criteria	(i)		Describe criteria and methods used as the basis for the classification of the Potentially Commercial Projects into varying confidence categories.	
4.5	Reporting	(i)	Discuss the reported low and high-grades and widths together with their spatial location to avoid misleading the reporting of Exploration Projects, Potentially Commercial Projects or Commercial Projects.		
		(ii)	Discuss whether the reported grades are regional averages or if they are selected individual samples taken from the property under discussion.		
		(iii)	State assumptions regarding mining methods, infrastructure, metallurgy, environmental and social parameters. State and discuss where no mining related assumptions have been made.		
		(iv)	State the specific quantities and grades / qualities which are being reported in ranges and/or widths, and explain the basis of the reporting		
		(v)		Present the detail for example open pit, underground, residue stockpile, remnants, tailings, and existing pillars or other sources in the Potentially Commercial Project statement	

TABLE C1					
		Exploration Projects	Potentially Commercial Projects	Commercial Projects	
Section 4: Estimation and Reporting of Exploration Projects and Potentially Commercial Projects					
4.5	Reporting	(vi)		Present a reconciliation with any previous Potentially Commercial Projects estimates. Where appropriate, report and comment on any historic trends (e.g. global bias).	
		(vii)		Present the defined reference point for the tonnages and grades reported as Potentially Commercial Projects. State the reference point if the point is where the run of mine material is delivered to the processing plant. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.	
		(viii)	If the CP is relying on a report, opinion, or statement of another expert who is not a CP, disclose the date, title, and author of the report, opinion, or statement, the qualifications of the other expert and why it is reasonable for the CP to rely on the other expert, any significant risks and any steps the CP took to verify the information provided.		
		(ix)	State the basis of equivalent metal formulae, if applied.		

TABLE C1							
		Exploration Projects		Potentially Commercial Projects		Commercial Projects	
Section 5: Technical Studies							
5.1	Introduction	(i)	Technical Studies are not applicable to Exploration Projects	State the level of study – whether scoping, prefeasibility, feasibility or ongoing Life of Mine	State the level of study – whether prefeasibility, feasibility or ongoing Life of Mine. The PARC requires that a study to at least a Pre-Feasibility level has been undertaken to convert Potentially Commercial Project to Mineral Reserve. Such studies will have been carried out and will include a mine plan or production schedule that is technically achievable and socially, environmentally and economically viable, and that all Modifying Factors have been considered.		
		(ii)			Provide a summary table of the Modifying Factors used to convert the Potentially Commercial Project to Commercial Project for Pre- feasibility, Feasibility or on-going life-of-mine studies.		
5.2	Mining Design	(i)	Technical Studies are not applicable to Exploration Projects	State assumptions regarding mining methods and parameters when estimating Potentially Commercial Projects or explain where no mining assumptions have been made.			

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 5: Technical Studies				
5.2	Mining Design	(ii)		State and justify all modifying factors and assumptions made regarding mining methods, minimum mining dimensions (or pit shell) and internal and, if applicable, external) mining dilution and mining losses used for the techno-socio-environmental-economic study and signed-off, such as mining method, mine design criteria, infrastructure, capacities, production schedule, mining efficiencies, grade control, geotechnical and hydrological considerations, closure plans, and personnel requirements.
		(iii)		State what Potentially Commercial Project models have been used in the study.
		(iv)		Explain the basis of (the adopted) cut-off grade(s) or quality parameters applied. Include metal equivalentents if relevant
		(v)		Description and justification of mining method(s) to be used.
		(vi)		For open-pit mines, include a discussion of pit slopes, slope stability, and strip ratio.
		(vii)		For underground mines, discussion of mining method, geotechnical considerations, mine design characteristics, and ventilation/cooling requirements.

TABLE C1					
		Exploration Projects		Potentially Commercial Projects	Commercial Projects
Section 5: Technical Studies					
5.2	Mining Design	(viii)			Discussion of mining rate, equipment selected, grade control methods, geotechnical and hydrogeological considerations, health and safety of the workforce, staffing requirements, dilution, and recovery.
		(ix)			State the optimisation methods used in planning, list of constraints (practicality, plant, access, exposed Commercial Projects , stripped Commercial Projects , bottlenecks, draw control).
5.3	Metallurgical and Testwork	(i)	Technical Studies are not applicable to Exploration Projects		Discuss the source of the sample and the techniques to obtain the sample, laboratory and metallurgical testing techniques.
		(ii)			Explain the basis for assumptions or predictions regarding metallurgical amenability and any preliminary mineralogical test work already carried out.
		(iii)		Discuss the possible processing methods and any processing factors that could have a material effect on the likelihood of eventual socio-environmental-economic production. Discuss the appropriateness of the processing methods to the style of mineralisation.	Describe and justify the processing method(s) to be used, equipment, plant capacity, efficiencies, and personnel requirements.

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 5: Technical Studies				
5.3	Metallurgical and Testwork	(iv)		Discuss the nature, amount and representativeness of metallurgical test work undertaken and the recovery factors used. A detailed flow sheet / diagram and a mass balance should exist ,especially for multi-product operations from which the saleable materials are priced for different chemical and physical characteristics.
		(v)		State what assumptions or allowances have been made for deleterious elements and the existence of any bulk-sample or pilot-scale test work and the degree to which such samples are representative of the ore body as a whole.
		(vi)		State whether the metallurgical process is well-tested technology or novel in nature.
5.4	Infrastructure	(i)	Technical Studies are not applicable to Exploration Projects	Comment regarding the current state of infrastructure or the ease with which the infrastructure can be provided or accessed

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 5: Technical Studies				
5.4	Infrastructure	(ii)		Report in sufficient detail to demonstrate that the necessary facilities have been allowed for (which may include, but not be limited to, processing plant, tailings dam, leaching facilities, waste dumps, road, rail or port facilities, water and power supply, offices, housing, security, resource sterilisation testing etc.). Provide detailed maps showing locations of facilities.
		(iii)		Statement showing that all necessary logistics have been considered.
5.5	Environmental and Social	(i)	Technical Studies are not applicable to Exploration Projects	Confirm that the company holding the tenement has addressed the host country environmental legal compliance requirements and any mandatory and/or voluntary standards or guidelines to which it subscribes
		(ii)		Identify the necessary permits that will be required and their status and where not yet obtained, confirm that there is a reasonable basis to believe that all permits required for the project will be obtained
		(iii)		Identify and discuss any sensitive areas that may affect the project as well as any other environmental factors including I&AP and/or studies that could have a material effect on the likelihood of eventual socio-environmental-economic production. Discuss possible means of mitigation.
		(iv)		Identify any legislated social management programmes that may be required and discuss the content and status of these.
		(v)		Outline and quantify the material socio-environmental-economic and cultural impacts that need to be mitigated, and the mitigation measures and where appropriate the associated costs.

TABLE C1					
		Exploration Projects	Potentially Commercial Projects	Commercial Projects	
Section 5: Technical Studies					
5.6	Market Studies and socio-environmental-economic criteria	(i)	Technical Studies are not applicable to Exploration Projects		Describe the valuable and potentially valuable product(s) including suitability of products, co-products and by products to market.
		(ii)			Describe product to be sold, customer specifications, testing, and acceptance requirements. Discuss whether there exists a ready market for the product and whether contracts for the sale of the product are in place or expected to be readily obtained. Present price and volume forecasts and the basis for the forecast.
		(iii)			State and describe all socio-environmental-economic criteria that have been used for the study such as capital and operating costs, exchange rates, revenue / price curves, royalties, cut- off grades, reserve pay limits.
		(iv)			Summary description, source and confidence of method used to estimate the commodity price/value profiles used for cut-off grade calculation, socio-environmental-economic analysis and project valuation, including applicable taxes, inflation indices, discount rate and exchange rates.

TABLE C1					
		Exploration Projects	Potentially Commercial Projects	Commercial Projects	
Section 5: Technical Studies					
5.6	Market Studies and socio-environmental-economic criteria	(v)			Present the details of the point of reference for the tonnages and grades reported as Commercial Projects (e.g. material delivered to the processing facility or saleable product(s)). It is important that, in any situation where the reference point is different, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.
		(vi)			Justify assumptions made concerning production cost including transportation, treatment, penalties, exchange rates, marketing and other costs. Provide details of allowances that are made for the content of deleterious elements and the cost of penalties.
		(vii)			Provide details of allowances made for royalties payable, both to Government and private.
		(viii)			State type, extent and condition of plant and equipment that is significant to the existing operation(s).
		(ix)			Provide details of all environmental, social and labour costs considered
5.7	Risk Analysis	(i)	Technical Studies are not applicable to Exploration Projects	Report an assessment of technical, environmental, social, economic, political and other key risks to the project. Describe actions that will be taken to mitigate and/or manage the identified risks.	

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 5: Technical Studies				
5.8	Socio-environmental-economic analysis	(i)	Technical Studies are not applicable to Exploration Projects	At the relevant level (Scoping Study, Pre-feasibility, Feasibility or on-going Life-of Mine), provide an socio-environmental-economic analysis for the project that includes:
		(ii)		Cash Flow forecast on an annual basis using Commercial Projects or an annual production schedule for the life of the project
		(iii)		A discussion of net present value (NPV), internal rate of return (IRR) and payback period of capital
		(iv)		Sensitivity or other analysis using variants in commodity price, grade, capital and operating costs, or other significant parameters, as appropriate and discuss the impact of the results.

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 6: Estimation and Reporting of Commercial Projects				
6.1	Estimation and modelling techniques	(i)		Describe the Potentially Commercial Project estimate used as a basis for the conversion to a Mineral Reserve.
		(ii)		Report the Commercial Project Statement with sufficient detail indicating if the mining is open pit or underground plus the source and type of mineralisation, domain or ore body, surface dumps, stockpiles and all other sources.
		(iii)		Provide a reconciliation reporting historic reliability of the performance parameters, assumptions and modifying factors including a comparison with the previous Reserve quantity and qualities, if available. Where appropriate, report and comment on any historic trends (e.g. global bias)
6.2	Classification Criteria	(i)		Describe and justify criteria and methods used as the basis for the classification of the Commercial Projects into varying confidence categories, based on the Potentially Commercial Project category, and including consideration of the confidence in all the modifying factors.
6.3	Reporting	(i)		Discuss the proportion of E2F2G2 Commercial Projects, which have been derived from E2F2G1 Potentially Commercial Projects (if any), including the reason(s) therefore.

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 6: Estimation and Reporting of Commercial Projects				
6.3	Reporting	(ii)		Present details of for example open pit, underground, residue stockpile, remnants, tailings, and existing pillars or other sources in respect of the Commercial Project statement
		(iii)		Present the details of the defined reference point for the Commercial Projects. State whether the reference point is the point where the run of mine material is delivered to the processing plant. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported. State clearly whether the tonnages and grades reported for Commercial Projects are in respect of material delivered to the plant or after recovery.
		(iv)		Present a reconciliation with the previous Commercial Project estimates. Where appropriate, report and comment on any historic trends (e.g. global bias).
		(v)		Only E2F2G1 and E2F2G2 Potentially Commercial Projects can be considered for inclusion in the Mineral Reserve.
		(vi)		State whether the Potentially Commercial Projects are inclusive or exclusive of Commercial Projects.

TABLE C1				
		Exploration Projects	Potentially Commercial Projects	Commercial Projects
Section 7: Audits and Reviews				
7.1	Audits and Reviews	(i)	State type of review/audit (e.g. independent, external), area (e.g. laboratory, drilling, data, environmental compliance etc), date and name of the reviewer(s) together with their recognized professional qualifications.	
		(ii)	Disclose the conclusions of relevant audits or reviews. Note where significant deficiencies and remedial actions are required.	
Section 8: Other Relevant Information				
8.1		(i)	Discuss all other relevant and material information not discussed elsewhere.	
Section 9: Qualification of Competent Person(s) and other key technical staff. Date and Signature Page				
9.1		(i)	State the full name, registration number and name of the professional body or RPO, for all the Competent Person(s). State the relevant experience of the Competent Person(s) and other key technical staff who prepared and are responsible for the Public Report.	
		(ii)	State the Competent Person's relationship to the issuer of the report.	
		(iii)	Provide the Certificate of the Competent Person (Section 6.8), including the date of sign-off and the effective date, in the Public Report.	

Table C2 provides guidelines for Technical Studies pertaining to various studies relating to Potentially Commercial Projects and Commercial Projects. It is designed to be read in conjunction with Table 1 and the PARC.

Scoping Studies, Pre-Feasibility Studies, Feasibility Studies (and on-going life-of-mine studies) analyse and assess the same geological, engineering, and socio-environmental-economic factors with increasing detail and precision. Therefore, the same criteria may be used as a framework for reporting the results of all three studies. The criteria for Pre-Feasibility Study are considered the minimum requirements for a Life of Mine Plan. Scoping Studies cannot convert E2F2G3 Potentially Commercial Projects to Commercial Projects.

Technical studies shall not include quantities associated with Exploration Projects.

Table C2 Guidelines for Technical Studies

TABLE C2			
General	Scoping Study	Prefeasibility Study	Feasibility Study
Potentially Commercial Projects categories	Mostly E2F2G3	Mostly E2F2G2	E2F2G1 and E2F2G2
Commercial Projects categories	None	Mostly E1F1G2	E1F1G1 and E1F1G2
Mining method and geotechnical constraints	Conceptual	Preliminary Options	Detailed and Optimized
Mine design	None or high-level conceptual	Preliminary mine plan and schedule	Detailed mine plan and schedule
Scheduling	Annual approximation	Quarterly to annual	Monthly for much of payback period
Mineral Processing	Metallurgical test work	Preliminary Options	Detailed and Optimized
Permitting - (water, power, mining, prospecting & environmental)	Required permitting listed	Preliminary applications submitted	Authorities engaged and applications submitted
Social licence to operate	Initial contact with local communities	Formal communication structures and engagement models in place	Contracts/agreements in place with local communities and municipalities (local government)
Risk tolerance	High	Medium	Low

Capital Cost Category	Scoping Study	Prefeasibility Study	Feasibility Study
Basis of Estimate to include the following areas:			
Civil/structural, architectural, piping/HVAC, electrical, instrumentation, construction labour, construction labour productivity, material volumes/amounts, material/equipment, pricing, infrastructure	Order-of-magnitude, based on historic data or factoring. Engineering < 5% complete.	Estimated from historic factors or percentages and vendor quotes based on material volumes. Engineering at 5- 20% complete.	Detailed from engineering at 20% to 50% complete, estimated material take-off quantities, and multiple vendor quotations

Contractors	Included in unit cost or as a percentage of total cost	Percentage of direct cost by area for contractors; historic for subcontractors	Written quotes from contractor and subcontractors
Engineering, procurement, and construction management (EPCM)	Percentage of estimated construction cost	Key parameters, Percentage of detailed construction cost	Detailed estimate
Pricing	FOB mine site, including taxes and duties	FOB mine site, including taxes and duties	FOB mine site, including taxes and duties
Owner's costs	Factored, benchmark, database or historic estimate	Budgeted quotes on key parameters and estimates from experience, factored from similar project	Detailed estimate
Environmental compliance / Closure Cost	Factored from historic estimate	Estimate from experience, factored from similar project	Estimate prepared from detailed zero-based budget for design engineering and specific permit requirements
Escalation	Not considered	Based on entity's current budget percentage	Based on cost area with risk
Accuracy Range (Order of magnitude)	±25-50%	±15-25%	±10-15%
Contingency Range (Allowance for items not specified in scope that will be needed)	±30%	15-30%	10% - 15% (actual to be determined based on risk analysis)

Operating Cost Category	Scoping Study	Prefeasibility Study	Feasibility Study
Basis	Order-of-magnitude, based on historic data or factoring.	Estimated from historic factors or percentages and vendor quotes based on material volumes.	Detailed estimate
Operating quantities	General	Specific estimates with some factoring	Detailed estimates
Unit costs	Based on historic data for factoring	Estimates for labour, power, and consumables, some factoring	Letter quotes from vendors; minimal factoring
Accuracy Range	±25-50%	15% - 25%	10% - 15%
Contingency Range (Allowance for items not specified in scope that will be needed)	± 25%	± 15%	± 10% (actual to be determined based on risk analysis)

6.7. Recommended Table of Contents for Competent Person's Report

This table of contents is given only as a guide to the compilation of CPRs. It is designed to incorporate all of the requirements of Table 1. This Appendix should be read in conjunction with Table 1 and the PARC. It is recommended that a Public Report include a CPR or reference to where the supporting documentation can be found e.g. a website.

6.7.1. General

The Terms of Reference or scope of work should be presented.

State for whom the report was prepared, whether it is intended as a full or partial evaluation or for other purpose, what work was conducted, the effective date of the report, and what work remains to be done.

List the sources of information and data contained in the report or used in its preparation, with citations if applicable.

Transparency, competency and materiality are overriding principles that determine what information should be publicly reported. The Competent Person (CP) shall provide sufficient comment on all matters that might materially affect a reader's understanding or interpretation of the results or estimates being reported.

Publicly reported information should be sufficient to enable a reader to make a reasonable and balanced assessment of the significance of this information. It is, however, important to report any matters that might materially affect a reader's understanding or interpretation of the results or estimates being reported. This is particularly important where inadequate or uncertain data affect the reliability of, or confidence in, a statement of Exploration Projects or an estimate of Potentially Commercial Projects or Commercial Projects.

In some cases it will be appropriate for a Public Report to exclude some commercially sensitive information. A decision to exclude commercially sensitive information would be a decision for the entity issuing the Public Report. The decision shall be disclosed and justification provided. In these cases, the report should provide summary information (for example, the methodology used to determine the socio-environmental-economic assumptions where the numerical values of those assumptions are commercially sensitive) and context for the purpose of informing investors or potential investors and their advisors.

The Public Report should include sufficient context and cautionary language to allow a reader to understand the nature, importance, and limitations of the data, interpretations, and conclusions.

The evaluation and reporting of mineral projects and forward-looking mine plans or statements from ongoing operations are expressions of judgment, predicated on knowledge and experience.

The CP shall state that 'the declaration has been made in terms of the guidelines of the PARC'.

Diagrams, maps, plans, sections and illustrations in Public Reports should be legible and prepared at an appropriate scale to distinguish important features. Maps should be dated and include a legend, author or information source, coordinate system and datum, a scale in bar or grid form, and an arrow indicating north. Include and reference a location or index

map and more detailed maps showing all important features described in the text, including all relevant cadastral and other infrastructure features.

6.7.2. Title Page

Include a title page setting out the title of the CPR, the general location of the mineral project, the name and professional designation of each CP, the effective date of the CPR and the date of signature.

6.7.3. Executive Summary

Briefly summarise important information in the Public Report, including property description and ownership, geology and mineralisation, the status of exploration, development and operations, Potentially Commercial Project and Commercial Project estimates, and the CP's conclusions and recommendations. If E2F2G3 Potentially Commercial Projects are used, show the summary valuation with and without inclusion of such E2F2G3 Potentially Commercial Projects. The Executive Summary should be sufficiently detailed so as to allow the reader to understand the essentials of the project.

6.7.4 Table of Contents

Provide a table of contents listing the contents of the CPR, including figures and tables.

- 1 Introduction
 - Terms of reference and scope of work
 - Sources of information
 - Units and currency
 - Site inspection or Field involvement of CP
 - Disclaimers and reliance on other experts or third-party information.

- 2 Project Outline
 - Property description
 - Property location
 - Country profile
 - **Alignment to Agenda 2063, AMV and SDGs**
 - Legal aspects and permitting
 - Royalties and liabilities.

- 3 Accessibility, Physiography, Climate, Local Resources and Infrastructure
 - Topography, elevation, fauna and flora
 - Climate
 - Access
 - Proximity to population centres
 - General infrastructure.

- 4 Project History
 - Previous ownership

- Previous exploration and/or project/mine development (compliance or noncompliance with the PARC or other international reporting code should be presented)
- Previous Potentially Commercial Project estimates (compliance or noncompliance with the PARC or other international reporting code should be presented)
- Previous Commercial Project estimates (compliance or noncompliance with the PARC or other international reporting code should be presented)
- Previous production.

5 Geological setting, mineralisation and deposit Types

- Geological setting
- Nature of, and controls on, mineralisation
- Geological models
- Nature of deposits on the property
- Deposit types and mineralisation.

6 Exploration Data/Information

- Remote sensing data and interpretations
- Geophysics
- Mapping
- Structural studies
- Drilling
- Sampling
- Database management
- QA/QC analysis
- Survey data verification, audits and reviews
- Metallurgical sampling and test work.

7 Potentially Commercial Project Estimates

- Estimation and modelling techniques
- Potentially Commercial Project classification criteria
- Reasonable prospects for eventual socio-environmental-economic production
- Potentially Commercial Project statement
- Potentially Commercial Project reconciliation.

8 Technical Studies (refer to Table C2)

- Geotechnical and geohydrology
- Mine design and schedule
- Metallurgical (processing/recovery)
- Project infrastructure
- Market studies and contracts
- Environmental studies
- Legal and permitting
- Taxation
- Social or Community Impact
- Mine closure

- Risk assessment
- Capital and operating costs
- Socio-Environmental-Economic criteria
- Socio-Environmental-Economic analysis.

9 Commercial Project Estimates

- Estimation and modelling techniques
- Commercial Project classification criteria
- Commercial Project statement
- Commercial Project reconciliation.

10 Other Relevant Data and Information

- Adjacent properties
- Risk assessments.

11 Interpretation and Conclusions

Summarise the relevant results and interpretations of the information and analysis being reported. Discuss any significant risks and uncertainties that could reasonably be expected to affect the reliability or confidence in the Exploration Projects, Potentially Commercial Project or Commercial Project estimates, or projected socio-environmental-economic outcomes. Discuss any reasonably foreseeable impacts of these risks and uncertainties to the project's potential socio-environmental-economic viability or continued viability. A CPR concerning exploration information should include the conclusions of the CP.

12 Recommendations

Provide particulars of recommended work programmes and a breakdown of costs for each phase. If successive phases of work are recommended, each phase should culminate in a decision point. The recommendations should not apply to more than two phases of work. The recommendations should state whether advancing to a subsequent phase is contingent on positive results in the previous phase. In some specific cases, the CP may not be in a position to make meaningful recommendations for further work. Generally, these situations will be limited to properties under development or in production where material exploration activities and engineering studies have largely concluded. In such cases, the CP should explain why they are not making further recommendations.

13 References

Include a detailed list of all references cited in the CPR.

14 Appendices

- Supporting information
- Glossary of terms
- Abbreviations
- Compliance statement and certificate of competence
- Consent form (if relevant).

Date and Signature Page

The CPR should have a signature page (at either the beginning or end of the CPR). The effective date of the CPR and date of signing should be on the signature page.

6.8. Certificate of Competent Person

This Certificate of Competent Person is given only as a guide to the CP. It is designed to incorporate all of the requirements of the PARC.

Certificate of Competent Person

As the author of the report entitled [report title], I hereby state:-

1. My name is [Competent Person's name] and [details – position in company, company name, address].
2. [Profession and details of registration body].
3. [Qualifications]
4. [Relevant experience].
5. I am a 'Competent Person' as defined in PARC.
6. [Work undertaken or services rendered].
7. [Site inspection details].
8. [Details of aspects of this report for which the CP is responsible].
9. I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report, the omission of which would make the Report misleading.
10. I declare that this Report appropriately reflects the Competent Person's/author's view.
11. I am independent/not independent of [name of issuer].
12. I have read the AMREC and PARC (2019) and the Report has been prepared in accordance with the guidelines of PARC.
13. I do not have, nor do I expect to receive, a direct or indirect interest in the [project/mine details] or [name of issuer] OR I am an [employee/shareholder/director or other interested party] in respect of the issuer [name of issuer] or the project/mine.
14. At the effective date of the Report, to the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the Report not misleading.

Dated at [place] and [date].

[Signed]

[Name of CP]

6.9. Compliance Statements

These compliance statements are given only as a guide to the CP (delete bullet points which do not apply). They are designed to incorporate all of the requirements of the PARC. For Public Reports of Exploration Targets, initial or materially changed reports of Exploration Projects, Potentially Commercial Projects or Commercial Projects:

‘The information in this report that relates to Exploration Targets, Exploration Projects, Potentially Commercial Projects is based on information compiled by [insert name of Competent Person]), a Competent Person who is registered with the Professional body as in Appendix 1 or a Recognised Professional Organisation (RPO) included in a list of recognised organisations promulgated by the AU AWG from time to time (select as appropriate and insert the name of the professional organisation of which the Competent Person is a member and the Competent Person’s grade of membership).

- If the Competent Person is a full-time employee of the company:
‘[name of Competent Person] is a full-time employee of the [name of company].’
- If the Competent Person is not a full-time employee of the company:
‘[name of Competent Person] is employed by [name of Competent Person’s employer].’
- The full nature of the relationship between the Competent Person and the reporting Company should be declared together with the Competent Person’s details. This declaration should outline and clarify any issue that could be perceived by investors as a conflict of interest.

For all reports:

‘[name of Competent Person] has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2016 Edition of the ‘The Pan-African Reporting Code’. [name of Competent Person] consents to the inclusion in the report of the matters based on his (or her) information in the form and context in which it appears.’

For any subsequent Public Report based on a previously issued Public Report that refers to those Exploration Projects or estimates of Potentially Commercial Projects or Commercial Projects:

Where a Competent Person has previously issued the written consent to the inclusion of their findings in a report, a company re-issuing that information to the Public whether in the form of a presentation or a subsequent announcement shall, state the report name, date and reference the location of the original source Public Report for public access.

- ‘The information is extracted from the report entitled [report title] created on [date] and is available to view on [website name]. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Potentially Commercial Projects or Commercial Projects , that all material assumptions and technical parameters underpinning

the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.'

7. Petroleum Reporting

This section provides the basis for minimum disclosure of information for public reporting of oil and gas reserves and resources. Such reports shall comply with this PARC and be reported in the manner prescribed by Form 7A.

7.1. Application

The PARC provides the basis for minimum disclosure of information for public reporting of oil and gas reserves and resources. Such reports shall comply with this PARC and be reported in the manner prescribed by Form 7A.

The definitions described below relate to the interpretation and application of PARC for petroleum application.

7.2. Oil and gas activities

- (i) Include any of the following:
 - (A) The search for Products in their natural locations;
 - (B) The acquisition of property rights or properties for the purpose of exploring for or removing Products from their natural locations on those properties;
 - (C) The activities necessary to remove Products from their natural locations, including construction, drilling, mining, development, production, and the acquisition, construction, installation and maintenance of field gathering, transportation and storage systems including product treatment, field processing and field storage; and decommissioning.
 - (D) The production of synthetic crude oil and synthetic gas
- (ii) But do not include any of the following:
 - (A) Activities that occur after the first point of sale;
 - (B) Activities relating to the production of natural resources other than Products and their by- products; or
 - (C) The production of hydrocarbons as a consequence of the production of geothermal steam.

Products includes but is not limited to any of the following:

- (i) In respect of liquid hydrocarbons, any of the following:
 - (A) light crude oil;
 - (B) medium crude oil;
 - (C) heavy crude oil;
 - (D) bitumen;
 - (E) natural gas liquids;
 - (F) synthetic crude oil; or
 - (G) any other unconventional oil (Shale Oil, Oil Shale etc.)
- (ii) In respect of gaseous hydrocarbons, any of the following:
 - (A) conventional natural gas;
 - (B) unconventional natural gas (Shale gas etc.)
 - (C) gas hydrates;
 - (D) synthetic gas.

7.3. Reporting Terminology

All reports shall be prepared having taken into account the principles incorporated in AMREC.

For the purpose of reporting in Africa, preparers are specifically required to adhere to the next section on “Requirements Applicable to All Disclosure”.

Table C3 Petroleum reporting: AMREC Classes Defined by Categories and Sub-categories.

AMREC Classes Defined by Categories and Sub-categories						
	Class	Sub-class	Minimum Categories			
			E	F	G	
Estimated Total Quantities Initially in Place	Produced	Commercial Production				
		Non Commercial Production				
	Known Resource	Commercial Projects	On Production	1	1.1	1, 2, 3
			Approved for Development	1	1.2	1, 2, 3
			Justified for Development	1	1.3	1, 2, 3
		Potentially Commercial Projects	Development Pending	2	2.1	1, 2, 3
			Development On Hold	2	2.2	1, 2, 3
		Non-Commercial Projects	Development Unclarified	3.2	2.2	1, 2, 3
			Development Not Viable	3.3	2.3	1, 2, 3
		Additional Quantities in Place		3.3	4	1, 2, 3
	Potential Resource	Exploration Projects	[See Generic Specifications for sub-classes]	3.2	3	4
		Additional Quantities in Place		3.3	4	4

7.4. Requirements applicable to all disclosure

7.4.1. Application

This Part applies to disclosure made by or on behalf of a *reporting entity*:

- (a) To the public; or
- (b) In other circumstances in which, at the time of making the disclosure, the

reporting entity knows, or ought reasonably to know, that the disclosure is or will become available to the public.

7.4.2. Disclosure of Commercial Project and other information

If a *reporting entity* makes disclosure of Commercial Project or other information of a type that is specified in *Form 7A*, the reporting entity shall ensure that the disclosure satisfies as a minimum the following requirements:

a. Estimates of Commercial Project or future net revenue shall:

- (i) disclose the *effective date* of the estimate;
- (ii) have been prepared by a Competent Person;
- (iii) have been prepared in accordance with AMREC;
- (iv) be based on a general discussion in *Form 7A*, that avoids misleading statements. The discussion should include the technologies used to establish the appropriate level of certainty for the reserve estimates. This discussion should describe methodologies used for the reserve bookings, and how in-place volumes were calculated, production tests were interpreted, and recovery factors assigned.
- (v) have been made assuming that development of each *property*, in respect of which the estimate is made, will occur, without regard to the likely availability to the *reporting entity* of funding required for that development, where reported under the category 'Justified for Development'; and
- (vi) in the case of estimates of possible Commercial Project of related future net revenue disclosed in writing, also include a cautionary statement that is proximate to the estimate to the following effect:
"Possible Commercial Project are those additional Commercial Project that are less certain to be recovered than probable Commercial Project. There is a 10% probability that the quantities actually recovered will equal or exceed the sum of proved plus probable plus possible Commercial Project"

(b) for the purpose of determining whether *Commercial Project* should be attributed to a particular *project*, reasonably estimated future abandonment and reclamation costs related to the project shall have been taken into account;

(c) In disclosing aggregate *future net revenue* the disclosure shall comply with the requirements for the determination of *future net revenue* specified in *Form 7A*; and

(d) A statement of the Commercial Project data and other information stated in *Form 7A* shall be disclosed as at the last day of the reporting entity's most recent financial year or a later date if more than six months have elapsed since the most recent financial year

7.4.3. Commercial Projects and Potentially Commercial Projects Classification

- (1) Disclosure of Commercial Project or Potentially Commercial Project shall apply the E, F and G-axis category and sub-category definitions set out in AMREC (see Part B) and shall relate to the most specific sub-class of Commercial Project or Potentially Commercial Project in which the Commercial Project or Potentially Commercial Project quantities can be classified.
- (2) The Competent Person who prepared the report under this PARC shall indicate that it was prepared in accordance with AMREC (see Part B).

7.4.4. Oil and Gas Potentially Commercial Projects and Sales

- (1) Disclosure of quantities or of sales of Products or associated by-products shall be made with respect to the first point of sale
- (2) Despite subsection (1), a reporting entity may disclose quantities or sales of Products or associated by-products with respect to an alternate reference point if, to a reasonable person, Products or associated by-products would be marketable at the alternate reference point;
- (3) If a reporting entity discloses quantities or sales of Products or associated by-products with respect to an alternate reference point, the reporting entity shall:
 - (i) State that the disclosure is made with respect to an alternate reference point,
 - (ii) Disclose the location of the alternate reference point, and
 - (iii) Explain why disclosure is not being made with respect to the first point of sale.

7.4.5. Future Net Revenue Not Fair Market Value

Disclosure of an estimate of *future net revenue*, whether calculated without discount or using a discount rate, shall include a statement to the effect that the estimated values disclosed do not represent fair market value

7.4.6. Consent of Competent Person

A statement shall be included that the Competent Person has ensured that the information disclosed in the report is in compliance with the PARC and that the report may be published in its current form and context by the reporting entity.

7.4.7. Disclosure of Quantities Less Than All Commercial Project

If a reporting entity that has more than one Project makes written disclosure of any Commercial Project quantities attributable to a particular Project:

- (a) the disclosure shall include a cautionary statement to the effect that "The estimates of Commercial Project quantities and future net revenue for individual Projects may not reflect the same confidence level as estimates of Commercial Project and future net revenue for all Projects, due to the effects of aggregation; and
- (b) the document containing the disclosure of any Commercial Project quantities attributable to one Projects shall also disclose total Commercial Project quantities of the same classification for all Projects of the reporting

entity in the same country (or, if appropriate and not misleading, in the same foreign geographic area).

7.4.8. Disclosure of Potentially Commercial Project

- (1) If a reporting entity discloses anticipated results from Potentially Commercial Project which are not currently classified as Commercial Project, the reporting entity shall also disclose in writing, in the same document
 - (a) the reporting entity's equity holding in the Potentially Commercial Project
 - (b) the location of the Potentially Commercial Project
 - (c) the Products reasonably expected
 - (d) a description of the project including
 - (a) each significant event in the project and the specific time period in which each event is expected to occur
 - (b) the production technology and
 - (c) whether the project is a conceptual or pre-development study
 - (e) the risks and the level of uncertainty associated with recovery of the Potentially Commercial Project; and
 - (f) in the case of Exploration Project if its quantities are disclosed,
 - (i) the basis of the calculation of its value; and
 - (ii) Whether the value was prepared by an independent party.
- (2) If disclosure referred to in subsection (1) includes an estimate of a quantity of Potentially Commercial Project in which the reporting entity has an interest or intends to acquire an interest, or an estimated value attributable to an estimated quantity, the estimate shall:
 - (a) have been prepared by a *CP*;
 - (b) relate to the most specific sub-class of Potentially Commercial Project in which the Potentially Commercial Project quantities can be classified, as set out in AMREC and shall identify what portion of the estimate is attributable to each category; and
 - (c) be accompanied by the following information:
 - (i) a definition of the Potentially Commercial Project sub-class used for the estimate;
 - (ii) the effective date of the estimate;
 - (iii) the significant positive and negative factors relevant to the estimate;
 - (iv) in respect of Potentially Commercial Project, the specific

contingencies which prevent the classification of the Potentially Commercial Project as Commercial Project ; and

- (v) a cautionary statement in bold that is proximate to the estimate to the effect that:
 - (A) in the case of Potentially Commercial Project or a sub-class of Potentially Commercial Project other than Commercial Project:

“There is no certainty that it will be socio-environmentally-economically and/or technologically viable to produce any portion of the Potentially Commercial Project.” or
 - (B) in the case of Exploration Project or a sub-class of Exploration Project:

“There is no certainty that any portion of the Exploration Project will be discovered. If discovered, there is no certainty that it will be socio-environmentally-economically and/or technologically viable to produce any portion of the Exploration Project.”

7.4.9. Analogous Information

- (1) Sections 7.4.2, 7.4.3 and 7.4.8 do not apply to the disclosure of analogous information provided that the reporting entity discloses the following:
 - (a) The source and date of the analogous information;
 - (b) Whether the source of the analogous information was independent;
 - (c) If the *reporting entity* is unable to confirm that the analogous information was prepared by a *CP* or in accordance with AMREC, a cautionary statement to that effect proximate to the disclosure of the analogous information; and
 - (d) The relevance of the analogous information to the reporting entity's oil and gas activities.
- (2) For greater certainty, if a reporting entity discloses information that is an anticipated result, an estimate of a quantity of Commercial Project or Potentially Commercial Project, or an estimate of value attributable to an estimated quantity of Commercial Project or Potentially Commercial Project for an area in which it has an interest or intends to acquire an interest, that is based on an extrapolation from analogous information, sections 7.4.2, 7.4.3 and 7.4.8 apply to the disclosure of the information.

7.4.10. Net Asset Value and Net Asset Value per Share

Written disclosure of net asset value or net asset value per share shall include a description of the methods used to value assets and liabilities and the number of shares used in the calculation.

i. Commercial Project Quantity Replacement

Written disclosure concerning Commercial Project quantity replacement shall include an explanation of the method of calculation applied.

7.4.11. Netbacks

If Netbacks are disclosed the following information shall be included:

1. Reflect netbacks calculated by subtracting royalties, taxes and operating costs from revenues; and
2. State the method of calculation.

7.4.12. Disclosure using Oil and Gas Metrics

- (1) If a reporting entity discloses an oil and gas metric, other than an estimate of volume or value of quantities prepared in accordance with section 7.4.2 or 7.4.8 or a comparative or equivalency measure under sub-sections 2,3,4,5 or 6 of Form 7A, the reporting entity shall include disclosure that:
 - (a) Identifies the standard and source of the oil and gas metric;
 - (b) Provides a brief description of the method used to determine the oil and gas metric;
 - (c) Provides an explanation of the meaning of the oil and gas metric;
 - (d) Cautions readers as to the reliability of the oil and gas metric.
- (2) If there is no identifiable standard for an oil and gas metric, the reporting entity shall also include disclosure that:
 - (a) Provides a brief description of the parameters used in the calculation of the oil and gas metric; and
 - (b) States that the oil and gas metric does not have any standardised meaning and shall not be used to make comparisons.

7.4.13. Restricted Disclosure: Summation of Classes

- (1) A reporting entity shall not disclose a summation of an estimated quantity, or estimated value, of two or more of the following:
 - (a) Commercial Project;
 - (b) Potentially Commercial Project;
 - (c) Exploration Project;

- (d) Additional Quantities in Place (E3.3F4G1,2,3);
 - (e) Additional Quantities in Place (E3.3F4G4);
- (2) Despite subsection (1), a reporting entity may disclose an estimate of Estimated Total Quantities in Initially in Place, Known Resource quantities or Potential Resource quantities if the reporting entity includes, proximate to that disclosure, an estimate of each of the following, as applicable:
- (a) Commercial Project;
 - (b) Potentially Commercial Project;
 - (c) Exploration Project;
 - (d) Additional Quantities in Place (E3.3F4G1,2,3);
 - (e) Additional Quantities in Place (E3.3F4G4);
- (3) A reporting entity may disclose an estimate of Estimated Total Quantities Initially in Place, Known Resource quantities or Potential Resource quantities as the most specific sub-class that it can assign to its quantities if, proximate to its disclosure, the reporting entity.
- (a) explains why the Estimated Total Quantities Initially in Place, Known Resource quantities or Potential Resource quantities , as the case may be, is the most specific assignable sub-class; and
 - (b) Includes
 - (i) In the case of disclosure of Known Resource quantities , the cautionary statement required by clause 7.4.8 (2) (c) (v) (A), or
 - (ii) In the case of disclosure of Estimated Total Quantities Initially in Place or Potential Resource, the cautionary statement required by clause 7.4.8 (2) (c) (v) (B).

7.4.14. Disclosure of High-Case Estimates of Commercial Project and of Potentially Commercial Project other than Commercial Project

- (1) If a reporting entity discloses an estimate of G1 plus G2 plus G3 quantities associated with a Commercial Project, the reporting entity shall also disclose the corresponding estimates of G1 and G2 plus G3 quantities associated with the Commercial Project or of G2 and G3 quantities associated with the Commercial Project.
- (2) If a reporting entity discloses a G3 estimate of Potentially Commercial Project other than Commercial Project, the reporting entity shall also disclose the

corresponding G1 and G2 estimates.

7.5. Definitions

Throughout this PARC Code, unless otherwise stated or the content requires otherwise, an expression which denotes any gender includes other genders and the following terms will have the meanings set out below. Definitions in this section is also applicable to Form 7A.

Abandonment costs

Abandonment costs means all costs associated with:

- (i) rendering all intervals of a well incapable of flow into the wellbore or between intervals
- (ii) removing all wellhead equipment; and
- (iii) the physical removal of surface facilities, and the decommissioning of any facilities, in the vicinity of the well, required for the transport, treatment and metering of a Product.

Alternate reference point

Alternate reference point means a location at which quantities and values of a Product are measured before the first point of sale.

Analogous Information

Information about an area outside the area in which the reporting entity has an interest or intends to acquire an interest, which is referenced by the reporting entity for the purpose, in the opinion of a Competent Person, of drawing a comparison or conclusion to an area in which the reporting entity has an interest or intends to acquire an interest and may include:

- (i) historic information concerning Commercial Project;
- (ii) estimates of the volume or value of Commercial Project;
- (iii) historic information concerning Potentially Commercial Project;
- (iv) estimates of the volume or value of Potentially Commercial Project;
- (v) historic production amounts;
- (vi) production estimates; or
- (vii) information concerning a field, well, basin or reservoir.

Anticipated Results

Information that may, in the opinion of a Competent Person, indicate the potential value or quantities of Potentially Commercial Project in respect of the reporting entity's Potentially Commercial Project or a portion of its Potentially Commercial Project which may include:

- (i) an estimate of volume;
- (ii) an estimate of value;
- (iii) a real extent;
- (iv) anticipated pay thickness;
- (v) flow rates; or

- (vi) hydrocarbon content;

Bitumen

Bitumen means the naturally occurring viscous mixture, consisting mainly of pentanes and heavier hydrocarbons, with a viscosity greater than 10 000 mPa's (cP) measured at the mixture's original temperature in the reservoir and at atmospheric pressure on a gas-free basis.

TOE (Tonnes of Oil Equivalent)

Unit representing energy generated by burning one metric ton (1000 kilograms or 2204.68 pounds) or 7.33 barrels of oil equivalent, and equivalent to the energy obtained from 1270 cubic meters of natural gas or 1.4 metric tons of coal that is, 41.868 gigajoules (GJ), 39.68 million Btu (MMBtu), or 11.63 megawatt hours (MWh).

By-product

By-product means a hydrocarbon or non-hydrocarbon that is recovered as a consequence of producing a Product.

Coal bed Methane

Coal bed methane means natural gas, primarily made up of methane, contained in coal deposits

Potentially Commercial Project data

Potentially Commercial Project data means an estimate of Potentially Commercial Project quantities and related future net revenue, estimated using forecast prices and costs.

Conventional natural gas

Conventional natural gas means natural gas contained in and produced from pore space in an accumulation for which the primary trapping mechanism is related to hydrodynamic forces and localised or depositional geological features.

Effective Date

- 1) the cut-off date for all geological, engineering, and financial data after which no new information can be included in the evaluation; and
- 2) It is the date to which all future net revenue or other cash flow forecasts are discounted to determine net present values.

Entity

An Entity is a corporation, joint venture, partnership, trust, individual, principality, agency, or other person engaged directly or indirectly in

- (i) the exploration for, or production of, oil and gas;
- (ii) the acquisition of properties or interests therein for the purpose of conducting such exploration or production; or

- (iii) the ownership of properties or interests therein with respect to which such exploration or production is being, or will be, conducted.

First point of Sale

First point of sale means the first point after initial production at which there is a transfer of ownership of a Product.

Future Net Revenue

Future net revenue means a forecast of revenue, estimating using forecast prices and costs or constant prices and costs, arising from the anticipated development and production of Potentially Commercial Project and Commercial Project net of the associated royalties, operating costs, development costs, abandonment costs and reclamation costs. Corporate general and administrative expenses and financing costs are not deducted. Net present values of future net revenue shall be calculated using a discount rate and without discount rate.

Gas hydrates

Gas hydrates means naturally occurring crystalline substances composed of water and gas, in an ice lattice structure.

Heavy crude oil

Heavy crude oil means crude oil with a density greater than 10 degrees API gravity and less than or equal to 22.3 degrees API gravity.

Hydrocarbon

Hydrocarbon means a compound consisting of hydrogen and carbon, which, when naturally occurring, may also contains other elements such as sulphur.

Light crude oil

Light crude oil means crude oil with a density greater than 31.1 degrees API gravity

McfGE's (Thousand cubic feet of Gas Equivalent)

Converting oil volumes to the gas equivalent is customarily done on the basis of the nominal heating content or calorific value of the fuel. Common industry conversion factors range from barrel crude oil = 6 McfGE to 5.6 McfGE. (Other operators use the metric conversion ratio of 1 m³ crude oil = 1 McfGE)

Medium crude oil

Medium crude oil means crude oil with a density that is greater than 22.3 degrees API gravity and less than or equal to 31.1. Degrees API gravity.

Natural gas

Natural gas means a naturally occurring mixture of hydrocarbon gases and non-

hydrocarbon gases.

Natural gas liquids

Natural gas liquids means those hydrocarbon components that can be recovered from natural gas as a liquid including, but not limited to, ethane, propane, butanes, pentanes plus, condensate and may contain non-hydrocarbons.

Net back

The price of oil or gas at any interim point in the production and processing flow calculated based on the price of the derived sales products at a defined reference point.

Oil and Gas metric

Oil and Gas metric means a numerical measure of a reporting entity's oil and gas activities.

Property

A volume of the Earth's crust wherein a corporate entity or individual has contractual rights to produce, process, and market a defined portion of specified in-place minerals (including petroleum). Defined in general as an area but may have depth and/or stratigraphic constraints. May also be termed a lease, concession, or license.

Exploration Project data

Exploration Project means an estimate of Exploration Project quantities and related future net revenue, estimated using forecast prices and costs.

Reclamation costs

Reclamation costs means all costs, other than abandonment costs, associated with restoring land as close as possible to its original state or to a standard prescribed or imposed by a government or regulatory authority.

Reporting Entity

The entity submitting the Potentially Commercial Project and

Commercial Project Report. (See above) (Could also be

Reporting Issuer):

- (a) A "reporting issuer" as defined in securities legislation; or
- (b) In a jurisdiction in which the term is not defined in securities legislation, an issuer of securities that is required to file financial statements with the securities regulatory authority.

Commercial Project Data

Estimates of G1 quantities associated with a Commercial Project and G2 quantities

associated with Commercial Project and related future net revenue estimated using forecast prices and costs.

Commercial Project Information

Commercial Project Information consists of various estimates pertaining to the extent and value of oil and gas properties. Commercial Project Information will include:

Estimates of oil and gas Commercial Project quantities and may, but will not necessarily, include estimates of

- (i) the future production rates from such Commercial Project
- (ii) the future net revenue from such Commercial Project
- (iii) the present value of such future net revenue.

All such Commercial Project Information shall be estimated and classified as appropriate to stated Commercial Project definitions.

Synthetic gas

Synthetic gas means a gaseous fluid:

- (A) generates as a result of the application of an in-situ transformation process to coal or other hydrocarbon-bearing rock type; and
- (B) comprised of not less than 10% by volume of methane.

Synthetic crude oil

Synthetic crude oil means a mixture of liquid hydrocarbons derived by upgrading bitumen, kerogen from oil shales, coal or from gas to liquid conversion and may contain sulphur or other non-hydrocarbon compounds.

7.6. FORM 7A - Oil and gas public report and other oil and gas information

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This is the form referred to in Part 1 and section 7.4.2 of PARC.

GENERAL INSTRUCTIONS

- (1) Terms for which a meaning is given in the PARC have the same meaning in this Form 7A.
- (2) It is not necessary to include the headings or numbering, or to follow the ordering of Items, in this Form 7A. Information may be provided in tables.
- (3) To the extent that any Item or any component of an Item specified in this Form 7A does not apply to a reporting entity and its activities and operations, or is not material, no reference need be made to that Item or component. It is not necessary to state that such an Item or component is "not applicable" or "not material".
- (4) This Form 7A sets out minimum requirements. A reporting entity may provide additional information not required in this Form 7A provided that it is not misleading and not inconsistent with the requirements of the PARC, and provided that material information required to be disclosed is not omitted.
- (5) A reporting entity may satisfy the requirement of this Form 7A for disclosure of information "by country" by instead providing information by foreign geographic area in respect of countries outside Africa as may be appropriate for meaningful disclosure in the circumstances.

PART 1 DATE OF STATEMENT

Item 1.1 Relevant Dates

- 1. Date the statement.
- 2. Disclose the effective date of the information being provided.
- 3. Disclose the preparation date of the information being provided.

INSTRUCTIONS

- (1) The same effective date applies to Commercial Project of each class or sub-class reported and to related future net revenue. References to a change in an item of information, such as changes in production or a change in Commercial Project, mean changes in respect of that item during the twelve months ended on the effective date.

(2) The preparation date, in respect of written disclosure, means the most recent date to which information relating to the period ending on the effective date was considered in the preparation of the disclosure. The preparation date is a date subsequent to the effective date because it takes time after the end of the effective date to assemble the information for that completed period that is needed to prepare the required disclosure as at the end of the effective date.

(3) Because of the interrelationship between certain of the reporting entity's Commercial Project data and other information referred to in this Form 7A and certain of the information included in its financial statements, the reporting entity shall ensure that its financial auditor and its CPs are kept apprised of relevant events and transactions, and shall facilitate communication between them.

(4) If the reporting entity provides information as at a date more recent than the effective date, in addition to the information required as at the effective date, also disclose the date as at which that additional information is provided. The provision of such additional information does not relieve the reporting entity of the obligation to provide information as at the effective date.

PART 2 DISCLOSURE OF COMMERCIAL PROJECT AND POTENTIALLY COMMERCIAL PROJECT

Item 2.1 Commercial Project Data (Constant or Forecast Prices and Costs)

1. Breakdown of Commercial Project Disclose, by country and in the aggregate, Commercial Project, gross and net, estimated using constant or forecast prices and costs, for each Product, in the following classes:

- (a) On Production Commercial Project G1 Quantities;
- (b) Approved for Development Commercial Project G1 Quantities;
- (c) Justified for Development Commercial Project G1 Quantities;
- (d) Commercial Project G1 Quantities (in total);
- (e) Commercial Project G2 (in total); and
- (f) Commercial Project G1 plus G2 Quantities (in total); and
- (g) if the reporting entity discloses an estimate of Commercial Project G3 quantities in the statement:
 - (i) Commercial Project G3 quantities (in total); and
 - (ii) Commercial Project G1 plus G2 plus G3 Quantities (in total).

2. The reporting entity shall provide a general discussion in Form 7A, that avoids misleading statements. The discussion shall include the technologies used to establish the appropriate level of certainty for the Commercial Project quantity estimates. This discussion shall describe methodologies used for the Commercial Project quantity bookings, and how in- place volumes were calculated, production tests were interpreted, and recovery factors assigned.

3. Net Present Value of Future Net Revenue– Disclose, by country and in the aggregate, the net present value of future net revenue attributable to the Commercial Project sub-classes referred to in section 1 of this Item, estimated using constant or forecast prices and costs, before and after deducting future income tax expenses, calculated without discount and using discount rates of 5 percent, 10 percent, 15 percent and 20 percent.

4. Additional Information Concerning Future Net Revenue

(a) Section 3 applies to future net revenue attributable to each of the following Commercial Project sub-classes disclosed under item 2.1 (1) estimated using constant or forecast prices and costs:

- (i) Commercial Project G1 Quantities (in total);

- (ii) Commercial Project G1 plus G2 Quantities (in total); and
- (iii) if paragraph 1(g) of this Item applies, Commercial Project G1 plus G2 plus G3 Quantities (in total).

(b) Disclose, by country and in the aggregate, the following elements of future net revenue estimated using constant or forecast prices and costs and calculated without discount:

- (i) revenue;
- (ii) royalties;
- (iii) operating costs;
- (iv) development costs;
- (v) abandonment costs and reclamation costs;
- (vi) future net revenue before deducting future income tax expenses;
- (vii) future income tax expenses; and
- (viii) future net revenue after deducting future income tax expenses.

(c) Disclose, by Product in each case with associated by-products, and on a unit value basis for each Product, in each case with associated by-products (e.g., \$/unit of oil or \$/unit of gas using net Commercial Project), the net present value of future net revenue (before deducting future income tax expenses) estimated using constant or forecast prices and costs and calculated using a discount rate of 10 percent.

5. Potentially Commercial Project or Exploration Project

If the reporting entity publicly discloses Potentially Commercial Project or Exploration Project in the Competent Person Report, they shall be disclosed separately from the disclosure required by items 1, 2 and 3 of section 2.1 of Form 7A as follows:

(a) The Potentially Commercial Project or Exploration Project, as applicable, gross and net, estimated using constant or forecast prices and costs, for each Product, in each of the following sub-classes:

- (i) Potentially Commercial Project (G1)
- (ii) Potentially Commercial Project (G2)
- (iii) Potentially Commercial Project (G3)
- (iv) Exploration Project (G4.1)
- (v) Exploration Project (G4.2)
- (vi) Exploration Project (G4.3); and

(b) The net present value of future net revenue attributable to each sub-class of Potentially Commercial Project referred to in paragraph (a) of this item, estimated using constant or forecast prices and costs, before deducting future income tax expenses, calculated using discount rates of 0 percent, 5 percent, 10 percent, 15 percent and 20 percent.

INSTRUCTIONS

(1) Disclose all of the Commercial Project over which the reporting entity has a direct or indirect ownership, working or royalty interest.

(2) Do not include, in the Commercial Project data, Potentially Commercial Project data or Exploration Project data, a Product that is subject to purchase under a long-term supply, purchase or similar agreement. However, if the reporting entity is a party to such an agreement with a government or governmental authority, and participates in the operation of the properties in which the Product is situated or otherwise serves as producer of the Potentially Commercial Project (in contrast to being an independent purchaser, broker, dealer or importer) disclose separately the reporting entity's interest in the Potentially

Commercial Project that subject to such agreements at the effective date and the net quantity of the Product received by the reporting entity under the agreement during the 12 months ended on the effective date.

(3) Future net revenue includes the portion attributable to the reporting entity's interest under an agreement referred to in Instruction 2.

(4) If the reporting entity's disclosure of Potentially Commercial Project would, to a reasonable person, be misleading, and if stated without an explanation of the reporting entity's ownership of or control over those Potentially Commercial Project, explain the nature of the reporting entity's ownership of no control over Potentially Commercial Project disclosed in the Form 7A report.

(5) If a reporting entity voluntarily discloses Potentially Commercial Project or Exploration Project and the G1 or loss estimate, as applicable, has a negative net present value at any of the discount rates referred to in paragraph 4 (b), the reporting entity shall disclose the negative net present value.

(6) Future net revenue includes the portion attributable to the reporting entity's interest under an agreement referred to in Instruction (2).

(7) Constant prices and costs are prices and costs used in an estimate that are:

(a) the reporting entity's prices and costs as at the effective date of the estimation, held constant throughout the estimated lives of the properties to which the estimate applies;

(b) if, and only to the extent that, there are fixed or presently determinable future prices or costs to which the reporting entity is legally bound by a contractual or other obligation to supply a physical product, including those for an extension period of a contract that is likely to be extended, those prices or costs rather than the prices and costs referred to in paragraph (a).

For the purpose of paragraph (a), the reporting entity's prices will be the posted price for oil and the spot price for gas, after historical adjustments for transportation, gravity and other factors.

PART 3 PRICING ASSUMPTIONS

Item 3.1 Constant Prices

For each Product, disclose the benchmark reference prices for the countries or regions in which the reporting entity operates, as at the last day of the reporting entity's most recent financial year, reflected in the Commercial Project data disclosed in response to Item 2.1

Item 3.2 Forecast Prices Used in Estimates

1. For each Product, disclose:

(a) the pricing assumptions used in estimating Commercial Project data, Potentially Commercial Project or Exploration Project data disclosed in response to

Item 2.1:

(i) for each of at least the following five financial years; and

(ii) generally, for subsequent periods; and

(b) the reporting entity's weighted average historical prices for the most recent financial year.

2. The disclosure in response to section 1 shall include the benchmark reference pricing schedules for the countries or regions in which the reporting entity operates, and inflation and other forecast factors used.

3. If the pricing assumptions specified in response to section 1 were provided by a Competent Person who is independent of the reporting entity, disclose that fact and identify the CP.

INSTRUCTIONS

- (1) Benchmark reference prices may be obtained from sources such as public product trading exchanges or prices posted by purchasers.
- (2) The term "constant prices and costs" and the defined term "forecast prices and costs" include any fixed or presently determinable future prices or costs to which the reporting entity is legally bound by a contractual or other obligation to supply a physical product, including those for an extension period of a contract that is likely to be extended. In effect, such contractually committed prices override benchmark reference prices for the purpose of estimating Commercial Project data, Potentially Commercial Project data or Exploration Project data. To ensure that disclosure under this Part is not misleading, the disclosure shall reflect such contractually committed prices.
- (3) Under subsection 7.4.6 of the PARC, the reporting entity shall obtain the written consent of the CP to disclose his or her identity in response to section 3 of this Item.

PART 4 RECONCILIATION OF CHANGES IN COMMERCIAL PROJECT

Item 4.1 Commercial Project Reconciliation

1. Provide the information specified in section 2 of this Item in respect of the following Commercial Project sub-classes as published in terms of Item 2.1:
 - (a) Commercial Project G1 Quantities (in total);
 - (b) Commercial Project G2 Quantities (in total); and
 - (c) Commercial Project G1 plus G2 (in total).
2. Disclose changes between the Commercial Project estimates made as at the effective date and the corresponding estimates ("prior-year estimates") made as at the last day of the preceding year of the reporting entity:
 - (a) by country;
 - (b) for each of the following:
 - (i) light crude oil;
 - (ii) medium crude oil
 - (iii) heavy crude oil;
 - (iv) bitumen;
 - (v) natural gas liquids;
 - (vi) synthetic crude oil;
 - (vii) any other unconventional oil;
 - (viii) conventional natural gas;
 - (ix) unconventional natural gas;
 - (x) gas hydrates;
 - (xi) synthetic gas;
 - (c) separately identifying and explaining each of the following:
 - (i) extensions and improved recovery;
 - (ii) technical revisions;
 - (iii) discoveries;
 - (iv) acquisitions;
 - (v) dispositions;
 - (vi) socio-environmental-economic factors; and
 - (vii) production.

INSTRUCTIONS

- (1) The reconciliation required under this Item 4.1 shall be provided in respect of Commercial Project estimated using constant or forecast prices and costs, with the price and cost case indicated in the disclosure.

(2) For the purpose of this Item 4.1, it is sufficient to provide the information in respect of the products specified in paragraph 2(b), excluding solution gas, natural gas liquids and other associated by products.

(3) Reporting entities shall not include infill drilling Commercial Project in the group of technical revisions specified in clause 2(c) (ii). Commercial Project additions from infill drilling shall be included in the group of extensions and improved recovery in clause 2(c) (i) (or, alternatively, in an additional separate group under paragraph 2(c) labelled “infill drilling”).

PART 5 ADDITIONAL INFORMATION RELATING TO COMMERCIAL PROJECT DATA

Item 5.1 Commercial Project – Approved for Development and Commercial Project – Justified for Development

1. For G1 Commercial Project – Approved for Development:

(a) disclose for each Product the volumes of G1 Commercial Project – Approved for Development that were first attributed in each of the most recent three financial year’s end,; and

(b) discuss generally the basis on which the reporting entity attributes G1 Commercial Project – Approved for Development, its plans (including timing) for developing the G1 Commercial Project – Approved for Development quantities and, if applicable, its reasons for deferring the development of particular G1 Commercial Project – Approved for Development during the following five years.

2. For G2 Commercial Project – Approved for Development :

(a) disclose for each Product the volumes of G2 Commercial Project – Approved for Development that were first attributed in each of the most recent three financial years end ; and

(b) discuss generally the basis on which the reporting entity attributes G2 Commercial Project – Approved for Development quantities, its plans (including timing) for developing the G2 Commercial Project – Approved for Development and, if applicable, its reasons for deferring the development of particular G2 Commercial Project – Approved for Development during the following five years.

For G1 Commercial Project – Justified for Development:

(a) disclose for each Product the volumes of G1 Commercial Project – Justified for Development that were first attributed in each of the most recent three financial year’s end,; and

(b) discuss generally the basis on which the reporting entity attributes G1 Commercial Project – Justified for Development, its plans (including timing) for developing the G1 Commercial Project – Justified for Development quantities and, if applicable, its reasons for deferring the development of particular G1 Commercial Project – Justified for Development during the following five years.

4. For G2 Commercial Project – Justified for Development:

(a) disclose for each Product the volumes of G2 Commercial Project – Justified for Development that were first attributed in each of the most recent three financial years end ; and

(b) discuss generally the basis on which the reporting entity attributes G2 Commercial Project – Justified for Development quantities, its plans (including timing) for developing the G2 Commercial Project – Justified for Development and, if applicable, its reasons for deferring the development of particular G2 Commercial Project – Justified for Development during the following five years.

INSTRUCTIONS

(1) The phrase “first attributed” refers to the initial allocation of an volume of oil or gas Commercial Project – Approved for Development and Commercial Project – Justified for Development by a reporting entity. Only previously unassigned volumes of oil or gas may be included in the first attributed volumes for the applicable reporting period/ For example, in 2011 a reporting entity allocated by way of an acquisition, discovery, extension and improved recovery 300 Mcf of G1 Commercial Project – Approved for Development and Commercial Project – Justified for Development conventional natural gas, that would be the first attributed volume for 2011

(2) The discussion for a reporting entity’s plan for developing Commercial Project – Approved for Development and Commercial Project – Justified for Development or the reporting entity’s reasons for deferring the development of Commercial Project – Approved for Development and Commercial Project – Justified for Development shall enable a reasonable investor to assess the efforts made by the reporting entity to convert Commercial Project – Approved for Development and Commercial Project – Justified for Development to Commercial Project – On Production.

Item 5.2 Significant Factors or Uncertainties affecting Commercial Project Data

1. Identify and discuss important socio-environmental-economic factors or significant uncertainties that affect particular components of the Commercial Project data.

INSTRUCTIONS

(1) A reporting entity shall , under this Item, include a discussion of any significant abandonment costs and reclamation costs, unusually high expected development costs or operating costs, or contractual obligations to produce and sell a significant portion of production at prices substantially below those which could be realised but for those contractual obligations. If the information required by this Item is presented in the reporting entity’s financial statements and notes thereto for the most recent financial year ended, the reporting entity satisfies this Item by directing the reader to that presentation.

Item 5.3 Future Development Costs

1. (a) Provide the information specified in paragraph 1(b) in respect of development costs deducted in the estimation of future net revenue attributable to each of the following Commercial Project sub-classes:

(i) Commercial Project G1 Quantities (in total) estimated using constant or forecast prices and costs; and

(ii) Commercial Project G1 plus G2 (in total) estimated using constant or forecast prices and costs.

(b) Disclose, by country, the amount of development costs estimated

(i) in total, calculated using no discount; and

(ii) by year for each of the first five years estimated.

2. Discuss the reporting entity's expectations as to:

(a) the sources (including internally-generated cash flow, debt or equity financing, farm-outs or similar arrangements) and costs of funding for estimated future development costs; and

(b) the effect of those costs of funding on disclosed Commercial Project or future net revenue.

3. If the reporting entity expects that the costs of funding referred to in section 2, could make development of a property socially, environmentally and economically non-viable for that reporting entity, disclose that expectation and its plans for the property.

Item 5.4 Alignment to Agenda 2063, AMV and SDGs

1. Brief information pertaining to alignment to Agenda 2063, AMV and SDGs shall be provided.

PART 6 OTHER OIL AND GAS INFORMATION

Item 6.1 Oil and Gas Properties and Wells

1. Identify and describe generally the reporting entity's material properties, plants, facilities and installations:

- (a) identifying their location (e.g. province, country etc.);
- (b) indicating whether they are located onshore or offshore;
- (c) in respect of properties to which Commercial Project have been attributed and which are capable of producing but which are not producing, disclosing how long they have been in that condition and discussing the general proximity of pipelines or other means of transportation;
- (d) describing any statutory or other mandatory relinquishments, surrenders, back-ins or changes in ownership; and
- (e) any material factor that could impact the legal status.

2. State, separately for oil wells and gas wells, the number of the reporting entity's producing wells and non-producing wells, expressed in terms of both gross wells and net wells, by location.

Item 6.2 Significant Factors or Uncertainties Relevant to Properties with Resource disclosure

If disclosure is made under Item 2.1 (4) then identify and discuss significant socio-environmental-economic factors or significant uncertainties that affect the anticipated developments or production activities on properties.

INSTRUCTIONS

(1) A reporting entity shall, under this Item, include a discussion of any significant abandonment costs and reclamation costs, unusually high expected development costs or operating costs, or contractual obligations to produce and sell a significant portion of production at prices substantially below those which could be realised but for those contractual obligations.

(2) If the information required by this Item is presented in the reporting entity's financial statements and notes thereto for the most recent financial year ended, the reporting entity satisfies this Item by directing the reader to that presentation

Item 6.3 Forward Contracts

1. If the reporting entity is bound by an agreement (including a transportation agreement), directly or through an aggregator, under which it may be precluded from fully realizing, or may be protected from the full effect of, future market prices for oil or gas, describe generally the agreement, discussing dates or time periods and summaries or ranges of volumes and contracted or reasonably estimated values.

2. If the reporting entity's transportation obligations or commitments for future physical deliveries of oil or gas exceed the reporting entity's expected related future production from its G1 Commercial Project, estimated using constant or forecast prices and costs and disclosed under Part 2, discuss such excess, giving information about the amount of the excess, dates or time periods, volumes and reasonably estimated value.

Item 6.5 Tax Horizon

If the reporting entity is not required to pay income taxes for its most recently completed financial year, discuss its estimate of when income taxes may become payable.

Item 6.6 Costs Incurred

1. Disclose by country for the most recent financial year each of the following:
 - (a) Project acquisition costs, separately for Commercial Projects, Potentially Commercial Projects, Non-Commercial Projects and Exploration Project;
 - (b) exploration costs; and
 - (c) development costs.

INSTRUCTIONS

(1) If the costs specified in paragraphs (a) (b) and (c) are presented in the reporting entity's financial statements and the notes to those statements for the most recent financial year ended, the reporting entity satisfies this Item by directing the reader to that presentation

Item 6.7 Exploration and Development Activities

1. Disclose, by country and separately for exploratory wells and development wells:
 - (a) the number of gross wells and net wells completed in the reporting entity's most recent financial year; and
 - (b) for each group of wells for which information is disclosed under paragraph (a), the number completed as oil wells, gas wells and service wells and the number that were dry holes.
2. Describe generally the reporting entity's most important current and likely exploration and development activities, by country.

Item 6.8 Production Estimates

1. Disclose, by country, for each Product, the volume of production estimated for the first year reflected in the estimates of gross G1 Commercial Project and gross G2 Commercial Project disclosed under Item 2.1.
2. If one field accounts for 20 percent or more of the estimated production disclosed under section 1, identify that field and disclose the volume of production estimated for the field for that year.

Item 6.9 Production History

1. Disclose for each quarter of its most recent financial year, by country for each Product:
 - (a) the reporting entity's share of average daily production volume, before deduction of royalties; and
 - (b) as an average per unit of volume:
 - (i) the prices received;
 - (ii) royalties paid;
 - (iii) production costs; and
 - (iv) the resulting netback.
2. For each important field, and in total, disclose the reporting entity's production volumes for the most recent financial year, for each Product.

INSTRUCTION

In providing information for each Product for the purpose of Item 6.9, it is not necessary to allocate among multiple Products attributable to a single well, reservoir or other Commercial Project entity. It is sufficient to provide the information in respect of the principal Product attributable to the well, reservoir or other Commercial Project entity. Resulting netbacks may be disclosed on the basis of units of equivalency between Oil and Gas (e.g. TOE) but if so that shall be made clear and disclosure shall comply with section 7.4.12 of the PARC.

8. Renewable Energy Reporting

The section provides the basis for minimum disclosure of information for public reporting of Renewable Energy Projects. Such reports shall comply with this PARC and be reported in the manner prescribed by Form 8A.

8.1. Application

The PARC provides the basis for minimum disclosure of information for public reporting of Renewable Energy Projects. Such reports shall comply with this PARC and be reported in the manner prescribed by Form 8A.

The definitions described below relate to the interpretation and application of PARC for Renewable Energy application.

8.2. Renewable Energy activities

- (i) Include any of the following:
 - (A) The search for Renewable Energy Products in their natural locations;
 - (B) The acquisition of property rights or properties for the purpose of exploring for or producing Renewable Energy Products from their natural locations on those properties;
 - (C) The activities necessary to produce Renewable Energy Products from their natural locations, including construction, development, production, and the acquisition, construction, installation and maintenance of field gathering, transportation and storage systems including product treatment, field processing and field storage; and decommissioning.

- (ii) But do not include any of the following:
 - (A) Activities that occur after the first point of sale;
 - (B) Activities relating to the production of natural resources other than Renewable Energy Products and their by- products; or

Products includes but is not limited to any of the following:

- (A) Geothermal Energy
- (B) Bioenergy
- (C) Solar Energy
- (D) Wind Energy
- (E) Hydro Energy
- (F) Marine Energy

8.3. Reporting Terminology

All reports shall be prepared having taken into account the principles incorporated in AMREC (Table C4).

For the purpose of reporting in Africa, preparers are specifically required to adhere to the next section on "Requirements Applicable to All Disclosure".

Table C4 Renewable energy reporting: AMREC Classes Defined by Categories and Sub-categories

AMREC Classes Defined by Categories and Sub-categories						
	Class	Sub-class	Minimum Categories			
			E	F	G	
Estimated Total Quantities Initially in Place	Produced	Commercial Production				
		Non Commercial Production				
	Known Resource	Commercial Projects	On Production	1	1.1	1, 2, 3
			Approved for Development	1	1.2	1, 2, 3
			Justified for Development	1	1.3	1, 2, 3
		Potentially Commercial Projects	Development Pending	2	2.1	1, 2, 3
			Development On Hold	2	2.2	1, 2, 3
		Non-Commercial Projects	Development Unclassified	3.2	2.2	1, 2, 3
			Development Not Viable	3.3	2.3	1, 2, 3
		Additional Quantities in Place		3.3	4	1, 2, 3
	Potential Resource	Exploration Projects	[See Generic Specifications for sub-classes]	3.2	3	4
		Additional Quantities in Place		3.3	4	4

8.4. Requirements applicable to all disclosure

8.4.1. Application

This Part applies to disclosure made by or on behalf of a reporting entity:

- (a) To the public; or
- (b) In other circumstances in which, at the time of making the disclosure, the reporting entity knows, or ought reasonably to know, that the disclosure is or will become available to the public.

8.4.2. Disclosure of Commercial Project and other information

If a reporting entity makes disclosure of Commercial Project or other information of a type that is specified in Form 8A, the reporting entity shall ensure that the disclosure satisfies as a minimum the following requirements:

a. Estimates of Commercial Project or future net revenue shall:

- (i) disclose the *effective date* of the estimate;
- (ii) have been prepared by a Competent Person (See PART C Section 5);
- (iii) have been prepared in accordance with AMREC;
- (iv) be based on a general discussion in Form 8A, that avoids misleading statements. The discussion shall include the technologies used to establish the appropriate level of certainty for the Commercial Project quantity estimates. This discussion shall describe methodologies used for the Commercial Project quantity bookings, and how in-place quantities were calculated, production tests were interpreted and recovery factors assigned;
- (v) have been made assuming that development of each Project, in respect of which the estimate is made, will occur, without regard to the likely availability to the reporting entity of funding required for that development, where reported under the category 'Approved for Development' and 'Justified for Development'; and
- (vi) in the case of estimates of E1F1G3 Commercial Project quantities of related future net revenue disclosed in writing, also include a cautionary statement that is proximate to the estimate to the following effect:
"E1F1G3 Commercial Project are those additional Commercial Project quantities that are less certain to be recovered than E1F1G2 Commercial Project quantities. There is a 10% probability that the quantities actually produced will equal or exceed the sum of E1F1G1 plus E1F1G2 plus E1F1G3 Commercial Project quantities."

(b) for the purpose of determining whether Commercial Project shall be attributed to a particular Project, reasonably estimated future abandonment and reclamation costs related to the Project shall have been taken into account;

(c) In disclosing aggregate future net revenue the disclosure shall comply with the requirements for the determination of future net revenue specified in Form 8A; and

(d) A statement of the Commercial Project data and other information stated in Form 8A shall be disclosed as at the last day of the reporting entity's most recent financial year or a later date if more than six months have elapsed since the most recent financial year.

8.4.3. Commercial Projects and Potentially Commercial Projects Classification

1. Disclosure of Commercial Project or Potentially Commercial Project shall apply the E, F and G-axis category and sub-category definitions set out in AMREC (see Part B) and shall relate to the most specific sub-class of Commercial Project or Potentially Commercial Project in which the Commercial Project or Potentially Commercial Project quantities can be classified.
2. The Competent Person who prepared the report under this PARC shall indicate

that it was prepared in accordance with AMREC (see Part B).

8.4.4. Renewable Energy Potentially Commercial Projects and Sales

1. Disclosure of quantities or of sales of products or associated by-products shall be made with respect to the first point of sale
2. Despite subsection (1), a reporting entity may disclose quantities or sales of products or associated by-products with respect to an alternate reference point if, to a reasonable person, products or associated by-products would be marketable at the alternate reference point;
3. If a reporting entity discloses quantities or sales of products or associated by-products with respect to an alternate reference point, the reporting entity shall:
 - i. State that the disclosure is made with respect to an alternate reference point,
 - ii. Disclose the location of the alternate reference point, and
 - iii. Explain why disclosure is not being made with respect to the first point of sale.

8.4.5. Future Net Revenue Not Fair Market Value

Disclosure of an estimate of future net revenue, whether calculated without discount or using a discount rate, shall include a statement to the effect that the estimated values disclosed do not represent fair market value.

8.4.6. Consent of Competent Person

A statement shall be included that the Competent Person has ensured that the information disclosed in the report is in compliance with the PARC and that the report may be published in its current form and context by the reporting entity.

8.4.7. Disclosure of Quantities Less Than All Commercial Project

If a reporting entity that has more than one Project makes written disclosure of any Commercial Project quantities attributable to a particular Project:

- (a) the disclosure shall include a cautionary statement to the effect that "The estimates of Commercial Project quantities and future net revenue for individual Projects may not reflect the same confidence level as estimates of Commercial Project and future net revenue for all Projects, due to the effects of aggregation; and
- (b) the document containing the disclosure of any Commercial Project quantities attributable to one Projects shall also disclose total Commercial Project quantities of the same classification for all Projects of the reporting entity in the same country (or, if appropriate and not misleading, in the same foreign geographic area).

8.4.8. Disclosure of Potentially Commercial Projects

- (1) If a reporting entity discloses anticipated results from Potentially Commercial Project which are not currently classified as Commercial Project, the reporting entity shall also disclose in writing, in the same document
 - (a) the reporting entity's equity holding in the Potentially Commercial Project
 - (b) the location of the Potentially Commercial Project
 - (c) the Products reasonably expected
 - (d) a description of the project including
 - (a) each significant event in the project and the specific time period in which each event is expected to occur
 - (b) the production technology and
 - (c) whether the project is a conceptual or pre-development study
 - (e) the risks and the level of uncertainty associated with recovery of the Potentially Commercial Project and
 - (f) in the case of Exploration Project if its quantities are disclosed
 - (i) the basis of the calculation of its value; and
 - (ii) Whether the value was prepared by an independent party.
- (2) If disclosure referred to in subsection (1) includes an estimate of a quantity of Potentially Commercial Project in which the reporting entity has an interest or intends to acquire an interest, or an estimated value attributable to an estimated quantity, the estimate shall
 - (a) have been prepared by a *CP*
 - (b) relate to the most specific sub-class of Potentially Commercial Project in which the Potentially Commercial Project quantities can be classified, as set out in AMREC and shall identify what portion of the estimate is attributable to each category; and
 - (c) be accompanied by the following information:
 - (i) a definition of the Potentially Commercial Project sub-class used for the estimate
 - (ii) the effective date of the estimate
 - (iii) the significant positive and negative factors relevant to the estimate
 - (iv) in respect of Potentially Commercial Project, the specific contingencies which prevent the classification of the Potentially Commercial Project as Commercial Project and
 - (v) a cautionary statement in bold that is proximate to the estimate to the effect that:
 - (A) in the case of Potentially Commercial Project or a sub-class of Potentially Commercial Project other than Commercial Project:

"There is no certainty that it will be socio-environmentally-

economically and/or technologically viable to produce any portion of the Potentially Commercial Project.” or

- (B) in the case of Exploration Project or a sub-class of Exploration Project:

“There is no certainty that any portion of the Exploration Project will be estimated as Potentially Commercial Project or as a Commercial Project. If discovered, there is no certainty that it will be socio-environmentally-economically and/or technologically viable to produce any portion of the Exploration Project.”

8.4.9. Analogous Information

- (1) Sections 8.4.2, 8.4.3 and 8.4.8 do not apply to the disclosure of analogous information provided that the reporting entity discloses the following:
- (a) The source and date of the analogous information;
 - (b) Whether the source of the analogous information was independent;
 - (c) If the *reporting entity* is unable to confirm that the analogous information was prepared by a *CP* or in accordance with AMREC, a cautionary statement to that effect proximate to the disclosure of the analogous information; and
 - (d) The relevance of the analogous information to the reporting entity's Renewable Energy activities.
- (2) For greater certainty, if a reporting entity discloses information that is an anticipated result, an estimate of a quantity of Commercial Project or Potentially Commercial Project, or an estimate of value attributable to an estimated quantity of Commercial Project or Potentially Commercial Project for an area in which it has an interest or intends to acquire an interest, that is based on an extrapolation from analogous information, sections 8.4.2, 8.4.3 and 8.4.8 apply to the disclosure of the information.

8.4.10. Net Asset Value and Net Asset Value per Share

Written disclosure of net asset value or net asset value per share shall include a description of the methods used to value assets and liabilities and the number of shares used in the calculation.

8.4.11. Netbacks

If Netbacks are disclosed the following information shall be included:

1. Reflect netbacks calculated by subtracting royalties, taxes and operating costs from revenues; and
2. State the method of calculation.

8.4.12. Disclosure using Renewable Energy Metrics

1. If a reporting entity discloses an Renewable Energy metric, other than an

estimate of quantities or value of quantities prepared in accordance with section 8.4.2 or 8.4.8 or a comparative or equivalency measure under Part 2,3,4,5 or 6 of Form 8A, the reporting entity shall include disclosure that:

- (a) Identifies the standard and source of the Renewable Energy metric;
 - (b) Provides a brief description of the method used to determine the Renewable Energy metric;
 - (c) Provides an explanation of the meaning of the Renewable Energy metric;
 - (d) Cautions readers as to the reliability of the Renewable Energy metric.
2. If there is no identifiable standard for an Renewable Energy metric, the reporting entity shall also include disclosure that:
- a. Provides a brief description of the parameters used in the calculation of the Renewable Energy metric; and
 - b. States that the Renewable Energy metric does not have any standardised meaning and shall not be used to make comparisons.

8.4.13. Restricted Disclosure: Summation of Classes

- (1) A reporting entity shall not disclose a summation of an estimated quantity, or estimated value, of two or more of the following:
 - (a) Commercial Project;
 - (b) Potentially Commercial Project;
 - (c) Exploration Project;
 - (d) Additional Quantities in Place (E3.3F4G1,2,3);
 - (e) Additional Quantities in Place (E3.3F4G4);
- (2) Despite subsection (1), a reporting entity may disclose an estimate of Estimated Total Quantities Initially in Place, Known Resource quantities or Potential Resource quantities if the reporting entity includes, proximate to that disclosure, an estimate of each of the following, as applicable:
 - (a) Commercial Project;
 - (b) Potentially Commercial Project;
 - (c) Exploration Project;
 - (d) Additional Quantities in Place (E3.3F4G1,2,3);
 - (e) Additional Quantities in Place (E3.3F4G4);
- (3) A reporting entity may disclose an estimate of Estimated Total Quantities Initially in Place, Known Resource quantities or Potential Resource quantities as the most specific sub-class that it can assign to its quantities if, proximate to its disclosure, the reporting entity.
 - (a) explains why the Estimated Total Quantities Initially in Place, Known Resource quantities or Potential Resource quantities, as the case may be, is the most specific assignable sub-class; and

- (b) Includes
 - (i) In the case of disclosure of Known Resource quantities, the cautionary statement required by clause 8.4.8 (2) (c) (v) (A), or
 - (ii) In the case of disclosure of Estimated Total Quantities Initially in Place or Potential Resource quantities, the cautionary statement required by clause 8.4.8 (2) (c) (v) (B).

8.4.14. Disclosure of High-Case Estimates of Commercial Project and of Potentially Commercial Project other than Commercial Project

- (3) If a reporting entity discloses an estimate of G1 plus G2 plus G3 quantities associated with a Commercial Project, the reporting entity shall also disclose the corresponding estimates of G1 and G2 plus G3 quantities associated with the Commercial Project or of G2 and G3 quantities associated with the Commercial Project.
- (4) If a reporting entity discloses a G3 estimate of Potentially Commercial Project other than Commercial Project, the reporting entity shall also disclose the corresponding G1 and G2 estimates.

8.5. Definitions

Throughout this PARC Code, unless otherwise stated or the content requires otherwise, an expression which denotes any gender includes other genders and the following terms will have the meanings set out below. Definitions in this section is also applicable to Form 8A.

Abandonment costs

Abandonment costs means all costs associated with:

- (i) rendering all intervals of a operation incapable of production or between intervals
- (ii) removing all equipment; and
- (iii) the physical removal of surface facilities, and the decommissioning of any facilities, in the vicinity of the operation, required for the transport, treatment and metering of a product.

Alternate reference point

Alternate reference point means a location at which quantities and values of a products are measured before the first point of sale.

Analogous Information

Information about an area outside the area in which the reporting entity has an interest or intends to acquire an interest, which is referenced by the reporting entity for the purpose, in the opinion of a Competent Person, of drawing a comparison or conclusion to an area in which the reporting entity has an interest or intends to acquire an interest and may include:

- (i) historic information concerning Commercial Project;
- (ii) estimates of the quantities or value of Commercial Project;
- (iii) historic information concerning Potentially Commercial Project;
- (iv) estimates of the quantities or value of Potentially Commercial Project;
- (v) historic production amounts;
- (vi) production estimates; or
- (vii) information concerning a site.

Anticipated Results

Information that may, in the opinion of a Competent Person, indicate the potential value or quantities of Potentially Commercial Project in respect of the reporting entity's Potentially Commercial Project or a portion of its Potentially Commercial Project which may include:

- (i) an estimate of quantities
- (ii) an estimate of value
- (iii) a real extent
- (iv) production rates.

By-product

By-product means a renewable energy product that is recovered as a consequence of producing a product.

Potentially Commercial Project data

Potentially Commercial Project data means an estimate of Potentially Commercial Project quantities and related future net revenue, estimated using forecast prices and costs.

Effective Date

- 1) the cut-off date for all engineering and financial data after which no new information can be included in the evaluation; and
- 2) It is the date to which all future net revenue or other cash flow forecasts are discounted to determine net present values.

Entity

An Entity is a corporation, joint venture, partnership, trust, individual, principality, agency, or other person engaged directly or indirectly in

- (iv) the exploration for, or production of Renewable Energy;
- (v) the acquisition of properties or interests therein for the purpose of conducting such exploration or production; or
- (vi) the ownership of properties or interests therein with respect to which such exploration or production is being, or will be, conducted.

First point of Sale

First point of sale means the first point after initial production at which there is a transfer of ownership of a Product.

Future Net Revenue

Future net revenue means a forecast of revenue, estimating using forecast prices and costs or constant prices and costs, arising from the anticipated development and production of Potentially Commercial Project and Commercial Project net of the associated royalties, taxes, operating costs, development costs, abandonment costs and reclamation costs. Corporate general and administrative expenses and financing costs are not deducted. Net present values of future net revenue shall be calculated using a discount rate and without discount rate.

Net back

The price of Renewable Energy at any interim point in the production calculated based on the price of the derived sales products at a defined reference point.

Renewable Energy metric

Renewable Energy metric means a numerical measure of a reporting entity's Renewable Energy activities.

Property

A area wherein a corporate entity or individual has contractual rights to produce, process, and market a defined portion of specified in-place Renewable Energy. May also be termed a lease, concession, or license.

Exploration Project data

Exploration Project means an estimate of Exploration Project quantities and related future net revenue, estimated using forecast prices and costs.

Reclamation costs

Reclamation costs means all costs, other than abandonment costs, associated with restoring land as close as possible to its original state or to a standard prescribed or imposed by a government or regulatory authority.

Reporting Entity

The entity submitting the Potentially Commercial Project and Commercial Project Report. (See above) (Could also be Reporting Issuer):

- (c) A "reporting issuer" as defined in securities legislation; or
- (d) In a jurisdiction in which the term is not defined in securities legislation,

an issuer of securities that is required to file financial statements with the securities regulatory authority.

Commercial Project Data

Estimates of G1 quantities associated with a Commercial Project and G2 quantities associated with Commercial Project and related future net revenue estimated using forecast prices and costs.

Commercial Project Information

Commercial Project Information consists of various estimates pertaining to the extent and value of Renewable Energy products. Commercial Project Information will include:

Estimates of Renewable Energy Commercial Project quantities and may, but will not necessarily, include estimates of

- (i) the future production rates from such Commercial Project
- (ii) the future net revenue from such Commercial Project
- (iii) the present value of such future net revenue.

All such Commercial Project Information shall be estimated and classified as appropriate to stated Commercial Project definitions.

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This is the form referred to in Section 8.1 and Part 8.2 of PARC.

GENERAL INSTRUCTIONS

- (1) Terms for which a meaning is given in the PARC have the same meaning in this Form 8A.
- (2) It is not necessary to include the headings or numbering, or to follow the ordering of Items, in this Form 8A. Information may be provided in tables.
- (3) To the extent that any Item or any component of an Item specified in this Form 8A does not apply to a reporting entity and its activities and operations, or is not material, no reference need be made to that Item or component. It is not necessary to state that such an Item or component is "not applicable" or "not material".
- (4) This Form 8A sets out minimum requirements. A reporting entity may provide additional information not required in this Form 8A provided that it is not misleading and not inconsistent with the requirements of the PARC, and provided that material information required to be disclosed is not omitted.
- (5) A reporting entity may satisfy the requirement of this Form 8A for disclosure of information "by country" by instead providing information by foreign geographic area in respect of countries outside Africa as may be appropriate for meaningful disclosure in the circumstances.

PART 1 DATE OF STATEMENT

Item 1.1 Relevant Dates

1. Date the statement.
2. Disclose the effective date of the information being provided.
3. Disclose the preparation date of the information being provided.

INSTRUCTIONS

- (1) The same effective date applies to Commercial Project of each class or sub-class reported and to related future net revenue. References to a change in an item of information, such as changes in production or a change in Commercial Project, mean changes in respect of that item during the twelve months ended on the effective date.
- (2) The preparation date, in respect of written disclosure, means the most recent date to which information relating to the period ending on the effective date was considered in the preparation of the disclosure. The preparation date is a date subsequent to the effective date because it takes time after the end of the effective date to assemble the information for that completed period that is needed to prepare the required disclosure as at the end of the effective date.

(3) Because of the interrelationship between certain of the reporting entity's Commercial Project data and other information referred to in this Form 8A and certain of the information included in its financial statements, the reporting entity shall ensure that its financial auditor and its CPs are kept apprised of relevant events and transactions, and shall facilitate communication between them.

(4) If the reporting entity provides information as at a date more recent than the effective date, in addition to the information required as at the effective date, also disclose the date as at which that additional information is provided. The provision of such additional information does not relieve the reporting entity of the obligation to provide information as at the effective date.

PART 2 DISCLOSURE OF COMMERCIAL PROJECT AND POTENTIALLY COMMERCIAL PROJECT

Item 2.1 Commercial Project Data (Constant or Forecast Prices and Costs)

1. Breakdown of Commercial Project Disclose, by country and in the aggregate, Commercial Project, gross and net, estimated using constant or forecast prices and costs, for each Product, in the following classes:

- (a) On Production Commercial Project G1 Quantities;
- (b) Approved for Development Commercial Project G1 Quantities;
- (c) Justified for Development Commercial Project G1 Quantities;
- (d) Commercial Project G1 Quantities (in total);
- (e) Commercial Project G2 (in total); and
- (f) Commercial Project G1 plus G2 Quantities (in total); and
- (g) if the reporting entity discloses an estimate of Commercial Project G3 quantities in the statement:
 - (i) Commercial Project G3 quantities (in total); and
 - (ii) Commercial Project G1 plus G2 plus G3 Quantities (in total).

2. The reporting entity shall provide a general discussion in Form 8A, that avoids misleading statements. The discussion shall include the technologies used to establish the appropriate level of certainty for the Commercial Project quantity estimates. This discussion shall describe methodologies used for the Commercial Project quantity bookings, and how in- place volumes were calculated, production tests were interpreted, and recovery factors assigned.

3. Net Present Value of Future Net Revenue– Disclose, by country and in the aggregate, the net present value of future net revenue attributable to the Commercial Project sub-classes referred to in section 1 of this Item, estimated using constant or forecast prices and costs, before and after deducting future income tax expenses, calculated without discount and using discount rates of 5 percent, 10 percent, 15 percent and 20 percent.

4. Additional Information Concerning Future Net Revenue

(a) Section 3 applies to future net revenue attributable to each of the following Commercial Project sub-classes disclosed under item 2.1 (1) estimated using constant or forecast prices and costs:

- (i) Commercial Project G1 Quantities (in total);
- (ii) Commercial Project G1 plus G2 Quantities (in total); and
- (iii) if paragraph 1(g) of this Item applies, Commercial Project G1 plus G2 plus G3 Quantities (in total).

(b) Disclose, by country and in the aggregate, the following elements of future net revenue estimated using constant or forecast prices and costs and calculated without discount:

- (i) revenue;
- (ii) royalties;
- (iii) operating costs;
- (iv) development costs;
- (v) abandonment costs and reclamation costs;
- (vi) future net revenue before deducting future income tax expenses;
- (vii) future income tax expenses; and
- (viii) future net revenue after deducting future income tax expenses.

(c) Disclose, by Product in each case with associated by-products, and on a unit value basis for each Product, in each case with associated by-products (e.g.,

\$/unit of Renewable Energy Product using net Commercial Project), the net present value of future net revenue (before deducting future income tax expenses) estimated using constant or forecast prices and costs and calculated using a discount rate of 10 percent.

5. Potentially Commercial Project or Exploration Project

If the reporting entity publicly discloses Potentially Commercial Project or Exploration Project in the Competent Person Report, they shall be disclosed separately from the disclosure required by items 1, 2 and 3 of section 2.1 of Form 8A as follows:

(a) The Potentially Commercial Project or Exploration Project, as applicable, gross and net, estimated using constant or forecast prices and costs, for each Product, in each of the following sub-classes:

- (i) Potentially Commercial Project (G1)
- (ii) Potentially Commercial Project (G2)
- (iii) Potentially Commercial Project (G3)
- (iv) Exploration Project (G4.1)

- (v) Exploration Project (G4.2)
- (vi) Exploration Project (G4.3); and

(b) The net present value of future net revenue attributable to each sub-class of Potentially Commercial Project referred to in paragraph (a) of this item, estimated using constant or forecast prices and costs, before deducting future income tax expenses, calculated using discount rates of 0 percent, 5 percent, 10 percent, 15 percent and 20 percent.

INSTRUCTIONS

- (1) Disclose all of the Commercial Project over which the reporting entity has a direct or indirect ownership, working or royalty interest.
- (2) Do not include, in the Commercial Project data, Potentially Commercial Project data or Exploration Project data, a Product that is subject to purchase under a long-term supply, purchase or similar agreement. However, if the reporting entity is a party to such an agreement with a government or governmental authority, and participates in the operation of the properties in which the Product is situated or otherwise serves as producer of the Potentially Commercial Project (in contrast to being an independent purchaser, broker, dealer or importer) disclose separately the reporting entity's interest in the Potentially Commercial Project that subject to such agreements at the effective date and the net quantity of the Product received by the reporting entity under the agreement during the 12 months ended on the effective date.
- (3) Future net revenue includes the portion attributable to the reporting entity's interest under an agreement referred to in Instruction 2.
- (4) If the reporting entity's disclosure of Potentially Commercial Project would, to a reasonable person, be misleading, and if stated without an explanation of the reporting entity's ownership of or control over those Potentially Commercial Project, explain the nature of the reporting entity's ownership of no control over Potentially Commercial Project disclosed in the Form 8A report.
- (5) If a reporting entity voluntarily discloses Potentially Commercial Project or Exploration Project and the G1 or loss estimate, as applicable, has a negative net present value at any of the discount rates referred to in paragraph 4 (b), the reporting entity shall disclose the negative net present value.
- (6) Future net revenue includes the portion attributable to the reporting entity's interest under an agreement referred to in Instruction (2).
- (7) Constant prices and costs are prices and costs used in an estimate that are:
 - (a) the reporting entity's prices and costs as at the effective date of the estimation, held constant throughout the estimated lives of the properties to which the estimate applies;
 - (b) if, and only to the extent that, there are fixed or presently determinable future prices or costs to which the reporting entity is legally bound by a contractual or other obligation to supply a physical product, including those for an extension period of a contract that is likely to be extended, those prices or costs rather than the prices and costs referred to in paragraph (a).

For the purpose of paragraph (a), the reporting entity's prices will be the posted price for Renewable Energy Products, after historical adjustments for transportation and other factors.

PART 3 PRICING ASSUMPTIONS

Item 3.1 Constant Prices

For each Product, disclose the benchmark reference prices for the countries or regions in which the reporting entity operates, as at the last day of the reporting entity's most recent financial year, reflected in the Commercial Project data disclosed in response to Item 2.1

Item 3.2 Forecast Prices Used in Estimates

1. For each Product, disclose:

(a) the pricing assumptions used in estimating Commercial Project data, Potentially Commercial Project or Exploration Project data disclosed in response to

Item 2.1:

(i) for each of at least the following five financial years; and

(ii) generally, for subsequent periods; and

(b) the reporting entity's weighted average historical prices for the most recent financial year.

2. The disclosure in response to section 1 shall include the benchmark reference pricing schedules for the countries or regions in which the reporting entity operates, and inflation and other forecast factors used.

3. If the pricing assumptions specified in response to section 1 were provided by a Competent Person who is independent of the reporting entity, disclose that fact and identify the CP.

INSTRUCTIONS

(1) Benchmark reference prices may be obtained from sources such as public product trading exchanges or prices posted by purchasers.

(2) The term "constant prices and costs" and the defined term "forecast prices and costs" include any fixed or presently determinable future prices or costs to which the reporting entity is legally bound by a contractual or other obligation to supply a physical product, including those for an extension period of a contract that is likely to be extended.

In effect, such contractually committed prices override benchmark reference prices for the purpose of estimating Commercial Project data, Potentially Commercial Project data or Exploration Project data. To ensure that disclosure under this Part is not misleading, the disclosure shall reflect such contractually committed prices.

(3) Under subsection 8.4.6 of the PARC, the reporting entity shall obtain the written consent of the CP to disclose his or her identity in response to section 3 of this Item.

PART 4 RECONCILIATION OF CHANGES IN COMMERCIAL PROJECT

Item 4.1 Commercial Project Reconciliation

1. Provide the information specified in section 2 of this Item in respect of the following Commercial Project sub-classes as published in terms of Item 2.1:

- (a) Commercial Project G1 Quantities (in total);
- (b) Commercial Project G2 Quantities (in total); and
- (c) Commercial Project G1 plus G2 (in total).

2. Disclose changes between the Commercial Project estimates made as at the effective date and the corresponding estimates ("prior-year estimates") made as at the last day of the preceding year of the reporting entity:

- (a) by country;
- (b) for each of the Renewable Energy Products
- (c) separately identifying and explaining each of the following:
 - (i) extensions and improved production;
 - (ii) technical revisions;
 - (iii) acquisitions;
 - (iv) dispositions;
 - (v) socio-environmental-economic factors; and
 - (vi) production.

INSTRUCTIONS

(1) The reconciliation required under this Item 4.1 shall be provided in respect of Commercial Project estimated using constant or forecast prices and costs, with the price and cost case indicated in the disclosure.

(2) For the purpose of this Item 4.1, it is sufficient to provide the information in respect of the Products specified in paragraph 2(b).

PART 5 ADDITIONAL INFORMATION RELATING TO COMMERCIAL PROJECT DATA

Item 5.1 Commercial Project – Approved for Development and Commercial Project – Justified for Development

1. For G1 Commercial Project – Approved for Development:

- (a) disclose for each Product the quantities of G1 Commercial Project – Approved for Development that were first attributed in each of the most recent three financial year's end; and
- (b) discuss generally the basis on which the reporting entity attributes G1 Commercial Project – Approved for Development, its plans (including timing) for developing the G1

Commercial Project – Approved for Development quantities and, if applicable, its reasons for deferring the development of particular G1 Commercial Project – Approved for Development during the following five years.

2. For G2 Commercial Project – Approved for Development:

(a) disclose for each Product the quantities of G2 Commercial Project – Approved for Development that were first attributed in each of the most recent three financial years end; and

(b) discuss generally the basis on which the reporting entity attributes G2 Commercial Project – Approved for Development quantities, its plans (including timing) for developing the G2 Commercial Project – Approved for Development and, if applicable, its reasons for deferring the development of particular G2 Commercial Project – Approved for Development during the following five years.

3. For G1 Commercial Project – Justified for Development:

(a) disclose for each Product the quantities of G1 Commercial Project – Justified for Development that were first attributed in each of the most recent three financial year's end; and

(b) discuss generally the basis on which the reporting entity attributes G1 Commercial Project – Justified for Development, its plans (including timing) for developing the G1 Commercial Project – Justified for Development quantities and, if applicable, its reasons for deferring the development of particular G1 Commercial Project – Justified for Development during the following five years.

4. For G2 Commercial Project – Justified for Development:

(a) disclose for each Product the volumes of G2 Commercial Project – Justified for Development that were first attributed in each of the most recent three financial years end; and

(b) discuss generally the basis on which the reporting entity attributes G2 Commercial Project – Justified for Development quantities, its plans (including timing) for developing the G2 Commercial Project – Justified for Development and, if applicable, its reasons for deferring the development of particular G2 Commercial Project – Justified for Development during the following five years.

INSTRUCTIONS

(1) The phrase “first attributed” refers to the initial allocation of quantities of Renewable Energy Commercial Project – Approved for Development and Commercial Project – Justified for Development by a reporting entity. Only previously unassigned quantities of Renewable Energy may be included in the first attributed volumes for the applicable reporting period.

(2) The discussion for a reporting entity's plan for developing Commercial Project – Approved for Development and Commercial Project – Justified for Development or the reporting entity's reasons for deferring the development of Commercial Project – Approved for Development and Commercial Project – Justified for Development shall enable a reasonable investor to assess the efforts made by the reporting entity to convert Commercial

Project – Approved for Development and Commercial Project – Justified for Development to Commercial Project – On Production.

Item 5.2 Significant Factors or Uncertainties affecting Commercial Project Data

1. Identify and discuss important socio-environmental-economic factors or significant uncertainties that affect particular components of the Commercial Project data.

INSTRUCTION

(1) A reporting entity shall, under this Item, include a discussion of any significant abandonment costs and reclamation costs, unusually high expected development costs or operating costs, or contractual obligations to produce and sell a significant portion of production at prices substantially below those which could be realised but for those contractual obligations. If the information required by this Item is presented in the reporting entity's financial statements and notes thereto for the most recent financial year ended, the reporting entity satisfies this Item by directing the reader to that presentation.

Item 5.3 Future Development Costs

1. (a) Provide the information specified in paragraph 1(b) in respect of development costs deducted in the estimation of future net revenue attributable to each of the following Commercial Project sub-classes:

(i) Commercial Project G1 Quantities (in total) estimated using constant or forecast prices and costs; and

(ii) Commercial Project G1 plus G2 (in total) estimated using constant or forecast prices and costs.

(b) Disclose, by country, the amount of development costs estimated

(i) in total, calculated using no discount; and

(ii) by year for each of the first five years estimated.

2. Discuss the reporting entity's expectations as to:

(a) the sources (including internally-generated cash flow, debt or equity financing, farm-outs or similar arrangements) and costs of funding for estimated future development costs; and

(b) the effect of those costs of funding on disclosed Commercial Project or future net revenue.

3. If the reporting entity expects that the costs of funding referred to in section 2, could make development of a property socially, environmentally and economically non-viable for that reporting entity, disclose that expectation and its plans for the property.

5.4 Alignment to Agenda 2063, AMV and SDGs

1. Brief information pertaining to alignment to Agenda 2063, AMV and SDGs shall be provided.

PART 6 OTHER RENEWABLE ENERGY INFORMATION

Item 6.1 Renewable Energy Operations

1. Identify and describe generally the reporting entity's material properties, plants, facilities and installations:

- (a) identifying their location (e.g. province, country etc.);
- (b) indicating whether they are located onshore or offshore;
- (c) in respect of properties to which Commercial Project have been attributed and which are capable of producing but which are not producing, disclosing how long they have been in that condition and discussing the general proximity of transmission and distribution ;
- (d) describing any statutory or other mandatory relinquishments, surrenders, back-ins or changes in ownership; and
- (e) any material factor that could impact the legal status.

Item 6.2 Significant Factors or Uncertainties Relevant to Properties with Resource disclosure

If disclosure is made under Item 2.1 (4) then identify and discuss significant socio-environmental-economic factors or significant uncertainties that affect the anticipated developments or production activities on properties.

INSTRUCTIONS

- (1) A reporting entity shall, under this Item, include a discussion of any significant abandonment costs and reclamation costs, unusually high expected development costs or operating costs, or contractual obligations to produce and sell a significant portion of production at prices substantially below those which could be realised but for those contractual obligations.
- (2) If the information required by this Item is presented in the reporting entity's financial statements and notes thereto for the most recent financial year ended, the reporting entity satisfies this Item by directing the reader to that presentation

Item 6.3 Forward Contracts

1. If the reporting entity is bound by an agreement (including a transportation agreement), directly or through an aggregator, under which it may be precluded from fully realizing, or may be protected from the full effect of, future market prices for oil or gas, describe generally the agreement, discussing dates or time periods and summaries or ranges of volumes and contracted or reasonably estimated values.

2. If the reporting entity's transportation, transmission and distribution obligations or commitments for future physical deliveries of Renewable Energy exceed the reporting entity's expected related future production from its G1 Commercial Project, estimated using constant or forecast prices and costs and disclosed under Part 2, discuss such excess,

giving information about the amount of the excess, dates or time periods, volumes and reasonably estimated value.

Item 6.5 Tax Horizon

If the reporting entity is not required to pay income taxes for its most recently completed financial year, discuss its estimate of when income taxes may become payable.

Item 6.6 Costs Incurred

1. Disclose by country for the most recent financial year each of the following:
 - (a) Project acquisition costs, separately for Commercial Projects, Potentially Commercial Projects, Non-Commercial Projects and Exploration Project;
 - (b) research costs; and
 - (c) development costs.

INSTRUCTIONS

(1) If the costs specified in paragraphs (a) (b) and (c) are presented in the reporting entity's financial statements and the notes to those statements for the most recent financial year ended, the reporting entity satisfies this Item by directing the reader to that presentation

Item 6.7 Research and Development Activities

1. Disclose, by country and separately for research and development studies
2. Describe generally the reporting entity's most important current and likely research and development activities, by country.

Item 6.8 Production Estimates

1. Disclose, by country, for each Product, the volume of production estimated for the first year reflected in the estimates of gross G1 Commercial Project and gross G2 Commercial Project disclosed under Item 2.1.
2. If one field accounts for 20 percent or more of the estimated production disclosed under section 1, identify that field and disclose the volume of production estimated for the project for that year.

Item 6.9 Production History

1. Disclose for each quarter of its most recent financial year, by country for each Product:
 - (a) the reporting entity's share of average daily production volume, before deduction of royalties and taxes; and
 - (b) as an average per unit of quantity
 - (i) the prices received;
 - (ii) royalties paid;
 - (iii) production costs; and
 - (iv) the resulting netback.

2. For each important field, and in total, disclose the reporting entity's production volumes for the most recent financial year, for each Product.

INSTRUCTION

In providing information for each Product for the purpose of Item 6.9, it is not necessary to allocate among multiple Products attributable to a single Commercial Project entity. It is sufficient to provide the information in respect of the principal Product attributable to Commercial Project. disclosure shall comply with section 8.4.12 of the PARC.

PART D - ADMINISTRATION OF AMREC-PARC

Development, maintenance and monitoring progress of AMREC-PARC will be the responsibility of African Union-AMREC Working Group (AU-AWG) with AMDC providing the secretariat.

AU-AWG will be constituted by nominated members of AU member States.

Similarly, each country may have a Country AWG (CAWG) for implementing AMREC-PARC at country levels.

EGRM, with UNECE as the secretariat, that has the mandate for developing and maintaining UNFC will provide technical support for the development and maintenance of the system. This document and its subsequent revision will be reviewed and approved for technical consistency with the UNFC by the Technical Coordination Group and the EGRM.

Glossary of Terms

Term	Definition
Abandonment	Seal off to ensure safety of Project site.
Audit*	A systematic and detailed examination of the relevant resource quantities in AMREC classes meant for public disclosure, processes of estimation (including geological, geotechnical and other models), assumptions and conclusions undertaken in order to validate the appropriateness of the various components that contribute to the estimates of the public disclosed quantities. An Audit includes a detailed examination of the base data and validation of the resource quantity estimates. When compliance with the PARC is declared and signed off, the audit shall have been conducted by a Competent Person.
Category	Primary basis for classification using each of the three fundamental Criteria of social-environmental-economic viability (related Categories being E1, E2, and E3), field project status and feasibility (related Categories being F1, F2, F3 and F4), and general level of knowledge and/or confidence in estimates of quantities (related Categories being G1, G2, G3 and G4). Definitions of Categories are provided in AMREC Part B.
Class(es)	Primary level of resource classification resulting from the combination of a Category from each of the three Criteria (axes).
Classify (according to AMREC)	To assign estimated quantities to a specific Class (or Sub-class) of AMREC by reference to the definitions of Categories or Sub-categories for each of the three Criteria and taking into account both the Generic Specifications and the Sectoral Specifications or requirements that are included in the Aligned System, as set out in the relevant Bridging Document.
Competent Person (CP)*	Competent Person is one who has the ability to put skills, knowledge and experience into practice in order to perform activities or a job in an effective and efficient manner for resource classification, management and reporting.
Competent Person's Report (CPR)*	A report on the technical aspects of a project prepared by a Competent Person (CP). The contents are determined by the nature/status of the project being reported and may include a techno-socio-environmental-economic model as appropriate for the level of study.
Commercial	A project is commercial when it has been confirmed to be socially, environmentally, economically and technically feasible and satisfies all the relevant criteria of the E, F, and G axes that are required for it to proceed.
Contingencies	Criteria or conditions that shall be satisfied before a project can proceed.

Criteria	AMREC utilizes three fundamental Criteria for resource classification: social, environmental and economical viability (E axis); field project status and feasibility (F axis); and, level of knowledge/confidence in estimates (G axis). These Criteria are each subdivided into Categories and Sub-categories, which are then combined in the form of Classes or Sub-classes.
Decommissioning	The closing and potentially removing facilities associated with a project. These could include anything from minor local facilities, to major facilities such as large processing plants, or offshore structures
Dilution /Contamination*	Low or zero grade (waste) material that is produced during the course of the operations and thereby forms part of the Commercial Project
Economic	A project is economic when the anticipated monetary revenues equal or exceed the costs by a margin that satisfies financing requirements, taking the risks and opportunities into account, and provides a positive return on investment, often measured by a monetary criterion, such as having a positive NPV at a particular discount factor.
Effective Date*	The date of the most recent scientific or technical information included in the technical report
Environmental	The physical, chemical, and biological impact on, or changes to, the surrounding pre-existing environment, due to a project (e.g. heavy metal contamination in soils or water, disruption of wildlife habits and migration characters, etc.).
Estimated Total Quantities Initially in Place	Cumulative quantities in a Potential Resource, Known Resource and that are Produced. See Potential Resource, Known Resource
Evaluator	Person, or persons, performing resource estimation and/or classification.
Exploration Project	A Project that is associated with one or more Potential Resource (See Potential Resource).
Generic Specifications	Specifications that apply to the classification of quantities of any resource using AMREC.
Guidelines	Additional instruction on how AMREC may be applied in specific circumstances.
Historical Estimate*	An estimate of the quantity, grade, or metal or mineral content of a deposit, accumulation or renewable energy source that an issuer has not verified as a current Commercial Project. The estimate predates the issuing of the PARC and/or was prepared before the issuer acquiring, or entering into an agreement to acquire, an interest in the property or site that contains the quantities.
Known Resources	Quantities that has been demonstrated to exist by direct evidence. More detailed specifications can be found in relevant sectoral specifications.
Life of Mine Plan*	A design and financial/ socio-environmental-economic study of an existing operation in which appropriate assessments have been made of existing geological, mining, metallurgical, economic, marketing, legal, environmental, social, governmental, engineering, operational and all other Controlling Factors, which are considered in sufficient detail to demonstrate

	that continued production is reasonably justified. Refer to Table C2 for guidance.
Material Information*	Material information is any information relating to the business and affairs of a company that results in or would reasonably be expected to result in a significant change in the market price or value of any of the company's assets. Material information consists of both material facts and material changes related to the business and affairs of a company.
Mineable*	Those parts of the orebody, both socio-environmental-economic and not socio-environmental-economic, that can be produced during the normal course of mining.
Mine Design*	A framework of mining components and processes taking into account such aspects as mining methods used, access to the orebody, personnel and material handling, ventilation, water, power, and other technical requirements, such that mine planning can be undertaken.
Mineral Deposit (or Deposit)*	A mass of naturally occurring mineral material, usually of socio-environmental-economic interest, without regard to mode of origin. No commercial value is implied.
Mineral Occurrence*	Any mineral of potential socio-environmental-economic interest in any concentration found in bedrock or as float; especially a valuable (or potentially valuable) mineral in sufficient concentration to suggest further exploration.
Mineralisation*	The process or processes by which a mineral or minerals are introduced into the host rock, resulting in a potentially valuable deposit. It is a general terms, incorporating various types, e.g. fissure filling, impregnation, replacement, etc.
Numerical Code	Numerical designation of each Class or Sub-class of resource quantity as defined by AMREC. Numerical Codes are always quoted in the same sequence (i.e. E;F;G).
PARC	Pan-African Resource Reporting Code
Political	Action by a controlling organization that may influence, impede, prevent, or facilitate the ability to proceed with a project.
Potential Resources	Quantities that has not yet been demonstrated to exist by direct evidence, but is assessed as potentially existing based primarily on indirect evidence. More detailed specifications can be found in relevant sectoral specifications.
Product	The output from a Project that is directly linked to (or a direct replacement of) a Product Type and is saleable in an established market. (See also Product Type)
Product type	Cluster or group of outputs of potential socio-environmental-economic interest from a Project such as Petroleum, Minerals, Nuclear Fuels, Renewable Energy, Anthropogenic Resources or Geological Storage. A Product Type may include multiple products. (See also Product)

Project	A Project is a defined operation which provides the basis for socio-environmental-economic evaluation and decision-making. In the early stages of evaluation, the Project might be defined only in conceptual terms, whereas more mature Projects will be defined in significant detail. Where no operation can currently be defined for all or part of the resources, based on existing technology or technology currently under development, all quantities associated with that resource (or part thereof) are classified in Category F4.
Realms of Discourse (ROD)	Realms of Discourse (ROD) describes the context and the reason for evaluating and classifying a resource project. The same project is likely to be assessed under different conditions by various organisations. An organisation such as an operating company is likely to assess all its projects under the same ROD; a government agency will have its own, but different, ROD for all the projects that it assess.
Recognised Professional Organisation (RPO)*	A RPO shall : 1. Be a self-regulatory organisation covering professionals in resource production cycle; 2. Admit members primarily on the basis of their academic qualifications and experience; 3. Require compliance with the professional standards of competence and ethics established by the organisation; 4. Have disciplinary powers, including the power to suspend or expel a member; and 5. Have been accepted by the African Union Commission, AMREC Secretariat as an RPO.
Regeneration	Site is returned to or reconstituted for productive use (not necessarily measured by its socio-environmental-economic value), for example, a rock quarry used as a reservoir or lake for recreation.
Remediation (or Reclamation)	The restoration of a project site conditions that are required by regulatory or other provisions.
Residue / low grade stockpile / tailings*	Material resulting from mining or processing operations.
Resource	The cumulative quantities associated with Known and Potential Resource. See Known Resource, Potential Resource
Sector/Sectoral	Pertaining to a specific Product Type (See Product Type)
Social	The resulting impact on humans and society, from a project, such as: <ul style="list-style-type: none"> (a) Effects stemming from environmental changes (e.g. health issues due to heavy metal contamination). (b) Changes in social systems and structures, (e.g. ownership claims, traditional land usage, land and other value changes, changes in local population community structures, the creation of jobs and economic activity, etc.).
Specifications	Additional details (mandatory rules) as to how a resource classification system is to be applied, supplementing the framework definitions of that system. Generic Specifications provided for the AMREC ensure clarity and

	comparability and are complementary to the sectoral requirements, including in Aligned Systems, as set out in the relevant Bridging Document.
Sub-categories	Subdivision of Categories for each of the fundamental Criteria of social-environmental-economic viability, field project status and feasibility, and level of knowledge/confidence in estimates. Definitions of Sub-categories are provided in Part B.
Sub-classes	Subdivision of resource classification based on project maturity principles resulting from the combination of Sub- categories. Project maturity Sub-classes are discussed further in Part B.

* Applies to only PARC

References

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2. African Union Commission (2009) Africa Mining Vision (AMV): “Transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development”
http://www.africaminingvision.org/amv_resources/AMV/Africa_Mining_Vision_English.pdf
3. AMDC (2017) Kaiser Goncalves de Souza and Aberra Mogessie (editors): African Geology and Mineral Information System (GMIS) Strategy, Promoting Geological Knowledge as a Tool for Governance. African Mineral Development Centre (AMDC/UNECA), Addis Ababa.
<https://repository.uneca.org/handle/10855/23883>
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https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E
5. Society of Petroleum Engineers, World Petroleum Council, American Association of Petroleum Geologists, Society of Petroleum Evaluation Engineers, Society of Exploration Geophysicists, Society of Petrophysicists and Well Log Analysts and European Association of Geoscientists and Engineers (2018) Petroleum Resource Management System (PRMS) 2018 Update
<https://www.spe.org/en/industry/petroleum-resources-management-system-2018/>
6. Committee for Mineral Reserves International Reporting Standards (2013) CRIRSCO International Reporting Template for Exploration Results, Mineral Resources and Mineral Reserves
<http://www.crirSCO.com/template.asp>
7. SAMREC (2016) The South African Code for the Reporting of Exploration Results, Mineral Resources And Mineral Reserves <https://www.samcode.co.za/>
8. SMGOG (2017) The South African Code for the Reporting of Oil and Gas Resources
<https://www.samcode.co.za/>

Annexure 1

Professional and statutory bodies recognized by PARC as of May 2019 [List incomplete]

COUNTRY	NAME OF INSTITUTION	FIELD OF EARTH SCIENCE E.G. PETROLEUM	STATUTORY/VOLUNTARY	CONTACT DETAILS				
				EMAIL / WEBSITE	TEL.	FAX	POSTAL ADDRESS	CONTACT PERSON
Africa	Geological Society of Africa	All mineral resources		gbengaokunlola@yahoo.com		NA		Prof. Gbenga Okunlola
Angola	ANGOLA GEOLOGICAL INSTITUTE	All mineral resources	Statutory	lgeoAngola@hotmail.com	244,914,077,737	NA	P. Bag 1260 C, Ministry Square, Ho-Chi-Min Street, Luanda, Angola	Director Dr. Canga Xiaquivuila
	NATIONAL DIRECTORATE OF MINERAL RESOURCES	All mineral resources	Statutory	anbuneto@gmail.com	244,925,044,048	NA	4 de Fevereiro Avenue, nº 105 – Ingombota District, P.Bag 1279, Luanda, Angola	Director Dr. André Buta Neto
	ORDER OF ENGINEERS FROM ANGOLA	All mineral resources	Statutory	NA	00244917543508; +244931355454; +244934798531	NA	Coqueiros District, Rainha Ginga Street n.º 6468, Hyundai Building (COSAL), 11th Floor, Luanda, Angola	President

	ANGOLAN ASSOCIATION OF GEOLOGISTS	All mineral resources	Statutory	secretariado@aageologos.org	00244 914 461 769; +244 926 887 944	NA	4 de Fevereiro Avenue, 1st Floor, right side, Ingombota District, Luanda, Angola	President / Secretary
	FACULTY OF SCIENCE and FACULTY OF ENGINEERING , UNIVERSITY AGOSTINHO NETO	All mineral resources	Statutory	comunicacao@uan.ao	+244 924 975 656	NA	4 de Fevereiro Avenue, no.º 71, Luanda, Angola	Dean
Namibia	Geoscience Council of Namibia		Statutory	Secretary@geocouncil.org.na / www.geocouncil.org.na	264 61 2848111		Geoscience Council of Namibia, Private Bag 41524, Windhoek, Namibia	Secretariat
	Engineering Council of Namibia		Statutory	ecnamibia@iway.na	264 61 233 264		Postal Address PO Box 1996, Windhoek, Namibia	
	Engineering Council of Namibia		Statutory	ecnamibia@iway.na		4008 21		
South Africa	South African Council for Natural Scientific Professions (SACNASP)		Statutory	https://www.sacnasp.org.za/				

	Engineering Council of South Africa		Statutory					
	South African Council for Professional and Technical Surveyors (PLATO)		Statutory	http://www.plato.org.za/				
Zimbabwe	Minerals Marketing Corporation of Zimbabwe (MMCZ) Act Chapter 21:04		Statutory	mmcz@mmcz.co.zw	+263 4 487200-4		MMCZ BUILDING 90 Mutare Road Msasa Harare, Zimbabwe	Director
	The Chamber of Mines of Zimbabwe (CoMZ) Chapter 21:02		Statutory	info@chamines.co.zw	+263 (4)334517 + 263 (4)334507		20 Mount Pleasant Drive, Mount Pleasant, Harare, Zimbabwe P.O. BOX 712, Harare, Zimbabwe	CEO
	Zimbabwe Mining Development Corporation (ZMDC) Chapter 21:08		Statutory	info@zmdc.co.zw	+263 782 708 397-401	+263 (4) 4870 22	MMCZ Building 90 Mutare Road Msasa Harare Zimbabwe	Director
	Parliamentary Portfolio Committee on Mines and Energy,		Statutory					Chairperson

	The Zimbabwe School of Mines Presidential Charter in 1994		Statutory	admin@zsm.co.zw	263 9 291247, +263-9-290596-8 +263-9-291598	+263 9 2912 46	Coghlan Ave Extension, Killarney, Bulawayo, Zimbabwe	CEO
Sudan	National Geological Council of Sudan		statutory					
Benin	Office Béninois de Recherches Géologiques et Minières		Statutory	attingandedji47@yahoo.fr	22921302279	2292 1314 120	01 BP 249 Cotonou	Director
	Direction Générale de l'industrie Minière et Pétrolière		Statutory	adjokanonbasile@yahoo.fr	22921322272			Director
Nigeria	Council of Mining Engineers and Geoscientists (COMEG)		Statutory		+234 810 245 3857		9 Okemesi Crescent, Garki, Abuja, Nigeria	

**DRAFT DECISION ON THE REPORT OF THE MEETING OF THE 3RD STC ON
TRADE, INDUSTRY AND MINERALS**

The Executive Council,

1. **WELCOMES** the convening of the 3rd Meeting of the STC on Trade, Industry and Minerals held virtually on 3rd September, 2021.
2. **AKES NOTE** of the Report and Declaration of the 3rd Meeting of the STC on Trade, Industry and Minerals and the outcomes contained therein, as annexed.
3. **DIRECTS** the Commission in collaboration with relevant AU bodies and stakeholders to promote the implementation of the recommendations of the Report and Declaration.
4. **DIRECTS** that the Department of Economic Development, Trade, Industry and Mining (ETIM) of the African Union Commission be renamed as “the Department of Economic Development Trade, Tourism, Industry and Mining (ETTIM) in line with Assembly Decision No. Ext/Assembly/AU/Dec.1-4(XI) of November 2018 on Institutional Reform.
5. **DIRECTS** that the STC on Trade Industry and Minerals be renamed as the STC on Trade, Tourism Industry and Minerals in line with Assembly Decision No. Ext/Assembly/AU/Dec.1-4(XI) of November 2018 on Institutional Reform and that the STC amends its Rules of Procedure to include the new portfolios on Tourism, Oil and Gas.
6. **ENDORSES** the African Union Commodity Strategy, the Africa Quality Policy, the Business Plan of the African Minerals Development Center (AMDC) and the African Minerals and Energy Resources Classification Framework and Management System and the Pan African Reporting Code (AMREC-PARC).

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Report of the 3rd Ordinary Session of the Specialized Technical Committee on Trade, Industry and Mining

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