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EXECUTIVE COUNCIL
Tenth Ordinary Session
25 – 26 January 2007
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REPORT OF THE FIRST AFRICAN UNION CONGRESS OF SCIENTISTS AND POLICYMAKERS

INTRODUCTION

The First African Union Congress of Scientists and Policymakers took place from the 27th to 29th of October 2006 in Alexandria Egypt. The Congress brought together Africa's leading scientists, executives and decision-makers from industry, research institutions, governments and academia to discuss fundamental topics in science and technology (S&T) for socio-economic development of continent.

The Congress was one of the pre-Summit activities whose recommendations would be endorsed by the Extraordinary Conference of Ministers of Science and Technology and ultimately included among recommendations for Summit of Heads of State and Government in January 2007.

OBJECTIVES OF THE CONGRESS

- To provide a platform for dialogue between science and technology, S&T, practitioners and policy makers on the development of S&T in the continent.
- To create a common platform for focused discussion on factors affecting the development of S&T in Africa.
- To make recommendations on the above issues and get endorsement from the Science and Technology Ministers and ultimately the Heads of State and Government

ISSUES DISCUSSED

The Congress focused on three main themes based on the Summit theme, namely: **African solutions for African challenges through S&T**, **Growing and Sustaining African Human Capital** and **Creating enabling environment for S&T development**. Keynote speakers made presentations on these themes and the conference broke into discussion groups to consider these themes. Representatives of two countries who have successfully harnessed S&T for development, namely Finland, and China shared their experiences with the participants.

OUTCOME OF THE MEETING

The Congress made a number of recommendations among them: (1) the need to develop a system of innovation, i.e. the network of institutions and actors including government, academia and private sector through science, technology and innovation (STI) policy systems; (2) the need to accredit, support and improve existing networks and centers of excellence, especially those earmarked for the implementation of Africa's Science and Technology Consolidated Plan of Action; (3) the need to develop regional databases of indigenous technologies;

(4) develop high leadership in S&T structures in government and increase visibility, (5) drive policy through advisory councils, and mobilize resources for STI; (6) promote and sustain equity and access to education for all and (7) AU regions should put in place appropriate policy measures for exchange and mobility of educational facilities and staff.

With regard to funding for S&T, the Conference finally recommended that: (1) AU Member States should facilitate low cost direct remittances from the Diaspora to respective home countries for injection into their S&T national agendas; (2) commit to allocate 1% of GDP for S&T and that this allocation be included among the indicators in the African Peer Review Mechanisms.

It was also recommended that the African Union Congress of Scientists and Policymakers should be held after every two years.

DOCUMENTS APPENDED

The following document is appended to this report:

1. The Declaration of the First African Union Congress of Scientists and Policymakers

REPORT OF THE FIRST AFRICAN CONGRESS OF SCIENTISTS AND POLICY MAKERS

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REPORT

THE FIRST AFRICAN CONGRESS OF SCIENTISTS AND POLICY MAKERS

First Ordinary Session
Alexandria, Egypt
27-29 October 2006

I INTRODUCTION

1. The First African Union Congress of Scientists and Policy Makers (CASP) held its first Ordinary Session in Alexandria, Egypt from 27th to 29th of October 2006. The Congress was an opportunity for science and technology (S&T) policy makers and S&T practitioners to have dialogue on the role of Science, Technology and Research in socio-economic development of Africa. It created an opportunity for African scientists to share experiences with China and Finland who have successfully utilized S&T for their countries' economic development.

II OPENING CEREMONY

OPENING STATEMENT BY PROF. NAGIA ESSAYED, COMMISSIONER, HRST

2. The opening ceremony consisted of introductory remarks by Dr. Botlhale Tema and speeches delivered by Prof. Nagia Essayed, African Union Commissioner for Human Resources, Science and Technology and Dr. Ismael Serageldin, the Director of the Library of Alexandria.

3. In her statement, Prof. Essayed welcomed all the participants and wished them a pleasant stay in Egypt. She emphasized Africa's historical role as the cradle of human civilization while lamenting the fact that the continent is lagging behind many spheres of life.

4. She said that there is need for African countries to intensify their capacity to use S&T for their development to attain the international development objectives, the Millennium Development Goals (MDGs). She further suggested that the present Congress should initiate a structured framework for constant dialogue between scientists and policy makers with a view to promoting cooperation and integration of the continent.

5. In conclusion, the Commissioner informed the audience that, in keeping with the commitments made to promote the development process using S&T, the January 2007 Summit of Heads of States and Government to take place in Addis Ababa, has been assigned a theme *"Science, Technology and Research for Africa's Development"*. This focus on S&T, she noted, would be vital in institutionalizing S&T processes in Africa policy-making where scientists were expected to play an enhanced and visible role.

STATEMENT BY PROF. YAYE K. GASSAMA DIA, CHAIRPERSON OF THE AFRICAN MINISTERIAL CONFERENCE OF SCIENCE AND TECHNOLOGY

6. In her statement, Prof. Yaye K. Gassama Dia thanked the leadership, government and the people of the Arab Republic of Egypt for the kind gesture of hosting this first African Congress of Scientists and Policy Makers. She reiterated the need to enhance interaction and cooperation among scientists and policy makers so as to narrow the gap between them. She urged for the establishment of mechanisms that enabled Africa to make maximum use of scientific and the technological innovations of relevance to her society.

7. Prof. Yaye underscored the importance of creating an enabling S&T environment, including strengthening our centers of excellences, to harness S&T for development.

8. She drew attention to the potential drawbacks of the globalization and the need for awareness raising, mobilizing women and youth, and developing new educational curricula to reflect African aspirations and achieve the Millennium Development Goals (MDGs).

KEYNOTE ADDRESS BY PROF. ISMAIL SERAGELDIN, DIRECTOR OF ALEXANDRIA BIBLIOTHECA

9. In his statement, the Director conveyed goodwill greetings from H.E. the Prime Minister of Egypt. The Prime Minister urged Africa to take advantage of S&T advances, and develop priorities and capacities in areas where Member States would have comparative advantage.

10. He extolled on the value of regional approaches noting that African countries will secure synergistic advantages through such arrangements. He expressed Egypt's willingness to cooperate in the spirit of South-South collaboration.

11. Dr. Serageldin, in his capacity as the Director of the Library of Alexandria, enumerated several challenges facing the African S&T sector such as bridging the knowledge divide, accelerating S&T innovation, and the promising prospects of some emerging technologies.

12. He concluded by setting the tone for the Congress deliberation by calling for "science for policy" and "policy for science".

PRESENTATION OF THE CONGRESS BACKGROUND PAPER

BY DR. TEMA, DIRECTOR OF DEPARTMENT HRST

13. The second session opened by the Chairperson Prof. Papa El Hassane Diop, Chairperson of the Steering Committee for Science and Technology who reminded participants to remain focused on the various thematic areas of the congress in the next presentations.

14. The Congress was one of the key activities the HRST Department organized in preparation for the Summit of Heads of State and Government in January 2007.

15. She challenged the Congress to examine on the following key issues:
- Why was S&T not contributing to Africa's development?
- How could we harness S&T for Africa's development?
- What should be in place for S&T to play an effective role?

16. The following militating factors were highlighted:
- African science's detachment from development issues – no incentive for government to invest in S&T.

- Prejudice against science, which addressed issues of the ordinary African: High science – low science dichotomy.
- A lack of a critical mass of scientists.
- Poor policy conditions (including funding) for the development of S&T in the continent.
- No or poor community outreach of S&T through media in Africa.

17. She introduced the following thematic areas of the Congress which the breakaway groups would discuss and draw recommendations:
    - African solutions for African challenges through S&T – Developing a culture of innovation
    - Growing and Sustaining African Human Capital- Training & keeping scientists + popularising S&T careers
    - Creating enabling environment for S&T development – improving policy environment and funding

18. In conclusion she sated that the challenge for the scientists was to work with the African Union to achieve its mission: *"Build an integrated, prosperous and peaceful Africa, driven by its people and representing a dynamic force in the international arena".*

PRESENTATION OF THE AFRICAN SCIENCE AND TECHNOLOGY CONSOLIDATED PLAN OF ACTION

BY DR. JOHN MUGABE

19. Referring to Africa's Science and Technology Consolidated Plan of Action, CPA, Dr. Mugabe stressed on the transition from planning to action, and on the opportunities and challenges of the (CPA).

20. New opportunities for making progress in S&T in Africa included stronger political constituency that was being built on S&T, for example ministers have created the AMCOST, The Pan-African Parliament adopted S&T as a focal theme; NEPAD also presented opportunities for S&T development; the recent 2005 millennium summit has emphasized on S&T as a requirement to achieve the MDGS.

21. He recalled the process of establishing the CPA, which included a bottom-up participatory approach, with high-level political engagement and international partnership.

22. The plan had international recognition, as it was presented to the G8. It contained programmes for policy development and S&T priority projects for implementation. The NEPAD flagship programmes required involvement of the scientific community. He highlighted the need to develop indicators, to accelerate regional S&T cooperation, public awareness of S&T, technology parks, as well as increase S&T policy capacity.

23. He finally, stated that countries agreed to develop networks of centers of excellence, hubs that would include universities, build on existing laboratories and facilities; he insisted that the overall budget of the CPA is modest, only 158-200 millions for five years. He revealed that

work was in progress to establish an African Science and Innovation Facility to help raise and leverage fund for S&T. He stated that providing resources for longer term budgeting remained a challenge.

PRESENTATION OF "AFRICAN SOLUTIONS FOR AFRICAN CHALLENGES THROUGH SCIENCE AND TECHNOLOGY"

BY PROF. ADEREMI KUKU

24. Prof. Kuku underscored that social and economic development of any country or continent was intimately related to the development of science and technology (S&T) and the gap between the developed and the underdeveloped countries is intimately correlated to the differences in their levels of S&T development. The under-developed countries, like African countries, were among those left behind by the scientific, industrial and technological revolutions of the 18th and 19th centuries.

25. He observed that Africa had the opportunity to leapfrog into new and emerging technologies just like what Japan and South Korea did since Africa has enough population and enough young people (40% of its population is les than 15 years old) to mobilize into careers in various areas of S&T. Africa was endowed with abundant natural resources, he said, yet it was the least developed continent with high level of illiteracy, heavy debt, disease burden, low energy consumption, highest infant mortality, low level of research output and many environmental problems in the form of natural and man-made disasters. It was noted that none of these adverse aspects was impossible to overcome. He recalled the success story of Korea that dramatically improved its GNP and school enrolment in barely 45 years, to emphasize that where there was a will, there was a way for S&T development.

26. He examined the reasons why Africa was underdeveloped in the field of S&T and insisted on the importance of popularisation of S&T and called for the inculcation of scientific culture in the African society.

27. He concluded with a presentation of his proposal of 24 solutions for the development of S&T in Africa. These ranged from an increase in government funding, political will to support the use of S&T to improve the quality of the life of people and spreading scientific culture through popularisation, to leapfrog in S&T development, adoption of S&T policies everywhere in Africa and improvement of indigenous technologies and knowledge systems. The solution involves access to energy, health financing, S&T infrastructure and facilities, networking and creation of S/T databases. They build on centres of excellence, a high level of research output in Africa, and indigenous analyses of medicinal plants or drugs. They imply addressing brain drain and harnessing brain gain from brain drain.

PRESENTATION OF "GROWING AND SUSTAINING AFRICAN HUMAN CAPITAL"

BY PROF. SOSPETER MUHONGO

28. Prof. Muhongo elaborated on mechanisms and processes needed to generate and sustain critical mass of scientists, as it was vital in achieving the MDGs. Human capital development depended on the quality of science education, increasing the number of science students (male and female), enhancing science and technology research collaboration and networking, and engaging Africa's centres of excellence.

29. The growth of science and technology capabilities had been constrained right from the start because of limited S&T education facilities and the weak science curricula available in Africa. The enrolment ratios in African tertiary education varied from country to country, but the picture remained dismal among many member states. Public expenditures had declined over the years and the pupils per teacher ratios have been disappointing.

30. The training infrastructure was inadequate at the tertiary and research levels. It was in this context that leaders in Africa committed themselves to 1% GDP and have asked the G8 countries in 2005 for an extra US$5 billion to rebuild African universities.

31. It was suggested that for Africa to make any significant headway in S&T field, the following steps needed to be taken:

- Education budgets must be increased drastically (20% - 30% of national budgets);
- Enrolment of primary and secondary school students should grow by between 50%-150%;
- Enrolment in tertiary institutions should increase by between 50% - 200%;
- Urgently improve the quality and quantity of education.

PRESENTATION OF "CREATING AN ENABLING ENVIRONMENT FOR SCIENCE AND TECHNOLOGY DEVELOPMENT"

BY DR PHIL MJWARA,

32. Dr Phil Mjwara noted that science, technology and innovation have permeated the African social and political agenda as some countries are contributing a significant percentage of their GDP to research and development. The formulation of AU-NEPAD S&T Consolidated Plan of Action for the continent has given further impetus to efforts designed to harness S&T.

33. He said that S&T development systems required a coordinated interplay of knowledge, technology and economic institutions and organizations within a country. Government's leadership and input was critical for a technological change.

34. Democracy, Peace and Security should prevail to allow people to exercise creativity and advance intellectual pursuits. Political stability enabled governments to focus the scarce resources toward development programmes.

35. Knowledge-driven economies of the 21st century required the integration of science, technology and innovation in their national economic and social development plans. This required Institutional Framework for S&T to monitor and evaluate progress of S&T policy implementation based on a credible system of indicators.

36. Almost all African countries fell way short of the recommended 1% GDP target as S&T expenditure. Governments ought to mobilise resources for S&T development through well-considered budget lines and promote private sector investment in R&D. Government should find means for leveraging R&D funding from international research partnerships.

37. The protection of intellectual property was vital and pivotal in stimulating entrepreneurship and wealth creation. He observed that a balanced intellectual property regime would serve to spread the benefits of R&D more equitably among research and technology institutions.

38. He noted that national policies and industrial standards promoted research and development and paved way for R&D products and services onto the international markets.

39. The emergence of a vibrant political constituency was necessary to galvanize science and technology into political decision-making process. A strong and knowledgeable parliamentary committee should be formed and kept abreast of all S&T policy developments and activities, as well as oversee the work of the line ministries of S&T and other related public institutions.

40. It was noted that the technological achievements of ancient African civilizations should be researched and showcased. The value of African indigenous knowledge systems and technologies should be popularised. It was also noted that public understanding and participation was vital in decision-making on scientific matters that affected people's lives. Input of ordinary people in matters such as ethical issues related to modern technologies would promote democracy and collective social worth in society

41. He concluded that government should play a critical role in the development of institutional framework that allowed the participation and cooperation of all stakeholders. He said African countries should cooperate in Pan-African R&D programmes. The Consolidated Plan of Action provided ample opportunities for Africa to develop joint programmes.

SUCCESS STORIES

CHINA

42. The presentation on the success story of China, by Mr. Jang Yuli, covered the following areas:

- Accomplishments,
- Challenges and
- Projections.

It was noted that China had made tremendous strides using S&T as a primary driving force in its socio-economic development.

43. Mr. Yuli said that China accelerated S&T expenditure in 2005 amounting to a 25% increase compared to 2004. R&D expenditure alone grew by 20%. Moreover, the R&D workforce had reached a million. China boasted of 1200 technology institutes and 53 national high-tech parks. The significant growth in S&T infrastructure and personnel has improved the quality of S&T production, increasing the number of research papers and patented inventions.

44. Mr. Yuli said that China was facing major challenges likely to place rising demands on the S&T sector. The growth of China's strategic needs in the next 20 years stemmed mainly from population increases. Heightened demand for energy and water resources would require a 60% rise in S&T contribution.

45. To face the impending challenges, China plans to improve the environment for generating industrial innovations; support to small and medium scale enterprises (SMEs) was set to grow. Mr. Yuli concluded that his country was also seeking to strengthen its intellectual property system.

FINLAND

46. Professor Vayrynen presented the success story of Finland as it moved from poverty induced by heavy a famine in the 1860s and a bloody civil war in 1918 to a prosperous nation today. Finland's industry was based on the processing of raw materials, timber and ore, into paper and metal products.

47. In the 1980s the government initiated a systematic S&T policy that exploited the knowledge content of the society and industry to restore its competitiveness in the world market. Public outlays for R&D were increased. The high quality of the Finnish educational system was made a model for other industrialized countries. There was a massive increase in R&D expenditure with private companies investing over 70% of the total. Three sectors were particularly targeted, namely, pulp and paper, the metal industry and the electro technical products. The latter industry expended over 70% of the total R&D.

48. The sharp rise in the knowledge content of society and industry explained the rapid restoration of Finland's industrial competitiveness in the world market. This knowledge-based transformation engulfed educational system and the industrial sector. Nokia, the cell phone multinational giant, absorbed a 50% of Finland's corporate R&D.

49. In total Finland spent 3.5 % GDP into R&D. Investment alone was not the only solution, but international cooperation in S&T was vital as well.

50. It was said that Finland had promoted innovation-oriented policies at the European level as part of its thrust to enhance international cooperation in S&T. The Finnish S&T system was composed of the S&T Policy Council chaired by the Prime Minister. This institution has been key in defining the S&T trajectory of Finland.

51. He concluded by highlighting that S&T were not only promoted for to underpin the economic growth of Finland but had global relevance, including the prevention of disastrous epidemics, the pollution of environment, and adverse climate changes.

THE BREAKAWAY SESSIONS

Dr. Botlhale Tema, Director of Department of HRST, gave a briefing on the breakaway session. The participants joined the theme of their interest. Terms of reference were given to the lead discussants, who gave a brief note on the theme and chaired session.

(A) AFRICAN SOLUTIONS FOR AFRICAN CHALLENGES THROUGH S&T

Dr. Gurib-Fakim, Pro-Vice Chancellor for teaching & learning Portfolio, University of Mauritius chaired this breakaway session and the rapporteur was Prof. Addy Marian Ewurama, from the University of Ghana. The terms of reference for this breakaway session were:

1. Building a culture of S&T innovation.
2. Documentation, protection and the development of indigenous knowledge systems and technologies.
3. Community outreach and popularisation of S&T.

RECOMMENDATIONS FROM THE GROUP

1. Building a culture of S&T innovation

(a) Build the culture of science, technology and innovation, including the popularisation of science through a common and simplified language and enhancing the status of scientists.
(b) Promote commercialisation of R&D products, services and processes.
(c) Develop a system of innovation, i.e. the network of institutions and actors including government, academia and private sector through STI policy systems.
(d) Certify, support and improve existing networks and centers of excellence, especially those proposed in the clusters of the CPA.
(e) Encourage collaborative research of scientists.

2. Documentation, protection and development of Indigenous Knowledge and Technologies

(a) Develop regional databases of IKT and improve interaction between IKT and STI practitioners for enhanced trust, access, collaboration, standardization and commercialisation.

3. Community outreach and popularisation of S&T

(a) Develop high leadership S&T structures in government, increase visibility, drive policy through advisory councils, and mobilize resources for STI.
(b) Develop innovative funding and pressure groups for S&T, from academia, parliament, private sector and civil society.
(c) Advocate for international and regional cooperation and strongly to explore opportunities in international conventions and commitments for developing African STI to ensure a win-win situation with partners.

(B) GROWING AND SUSTAINING AFRICAN HUMAN CAPITAL

Prof. Stephen Gaya Agong, Executive Director, African Academy of Science chaired this breakaway session and the rapporteur was Mrs. Shuma-Iwisi Mercy Violet from the University of Witwatersrand. The terms of reference for this breakaway session were:

1. Increasing the numbers of students who study S&T (especially number of women).
2. Improving quality of science education.
3. S&T co-operation and networking centres of excellence.
4. Encouraging the Africans in the diaspora to contribute in the S&T development in their motherland.

RECOMMENDATIONS FROM THE GROUP

1. Increasing the number of students who study S&T (especially the number of women)

(a) Create a culture of S&T, and increase awareness of and sensitisation to S&T through:

- Declaring Africa Year of S&T every 5 years, starting at 2008
- Promoting the creation of a S&T week in all schools in Africa
- Advocating for the creation of S&T awards at national and regional levels

(b) Promote and sustain equity and access to education for all, especially in respect of rural populations of Africa and Girls.

2. Improving quality of science education

(a) Provide legible candidates at regional and national levels, (in order to enhance active recruitment and retention of both male and more female students in S&T) with:

- Strategic incentives: bursaries; special scholarships to be in place by the end of 2010
- Job guarantees, salary supplements and first job incentives for S&T teachers, researchers and academics, in order to improve their living conditions
- To introduce mentoring systems, and remedial programs to minimize drop outs at all levels

- To promote distance learning through e-learning and tele-education in S&T by the end of 2010

(b) Improve the quality of science education through policies, systems and structures that:

- Encourage curriculum updating at all levels in order to create need driven programmes at national and regional levels;
- Foster continuous professional development of teachers and researchers and university academia;
- Put in place ways/strategy to release the 1 % GDP dedicated to research in Science and Technology by 2008-2009 budget year;
- In so doing, priority should be given to updating and equipping university research facilities.

(c) AU, regions and countries should put in place appropriate policy measures to ease:

- Cross border exchange of teachers for schools.
- Cross border training of students at university level.
- Cross border exchange of scientists and researchers for teaching, research and development.

3. S&T co-operation and networking centres of excellence :

(a) The AU should promote policies that encourage member countries to:

- Harness the contribution of the private sector in S&T research institutions,
- Institutionalise accreditation of Universities according to international standards,
- Strategise periodic monitoring of S&T programmes by established authorities at country level.

(b) In order to facilitate cooperation and networking of Centers of Excellence in S&T, the AU should advocate for resource mobilization to sustain existing Regional Centers for Training on collaborative research in S&T.

(c) That the AU incite African countries to adopt policies that initiate and sustain networking of existing Centers and Universities through:

- Exchange of researchers and research outputs
- Formulation of research chairs
- Sharing use of already existing capital intensive S&T infrastructure and equipments

4. Encouraging the Africans in the diaspora to contribute in the S&T development in Africa :

(a) Africa countries should link with and tap into Diaspora networks with an S&T agenda.
(b) African Union should spearhead the creation of a Committee for the Diaspora by the end of 2008 that will streamline and strengthen contributions of the Diaspora to S&T in Africa.
(c) African Union should advocate for appropriate national policies, systems and structures for joint appointment, joint, research supervision, joint mentoring and exchange of staff and students.
(d) African countries should facilitate low cost direct remittances from the Diaspora to respective home countries for injection into their S&T national agendas.

(C) CREATING ENABLING ENVIRONMENT FOR SCIENCE AND TECHNOLOGY DEVELOPMENT

Prof. Ndiaye Ahmadou Lamine- The Vice President of the Senegalese National Academy of S&T chaired this breakaway session and the rapporteurs were Mrs. Lindiwe Lusenga, Department of S&T, South Africa and Dr. Kehinde Adekunbi Taiwo, Obafemi Awolowo University, Nigeria. The terms of reference for this breakaway session were:

1. S&T policies.
2. Financing S&T development (creative funding, traditional means and the role of private Sector and non state actors).
3. Technology transfer and domestication.

RECOMMENDATIONS FROM THE GROUP

1. S&T Policy

(a) Establish dedicated S&T department or ministries in all countries;
(b) To encourage governments to establish national S&T policies that include a framework for priority setting, minimum standards and statistics for infrastructure, capacity building, finance, human resources, monitoring indicators, and dissemination;
(c) Establish new or strengthen existing national and regional bodies for monitoring, accreditation, collaboration and sharing of information among all stakeholders in S&T;
(d) Create a panel of African scientists to serve as advisory board to the African Union for S&T;
(e) Create, at national and regional levels, a council for S&T including all stakeholders, aimed at advising and developing policies for S&T;
(f) Create a system of innovation in all countries (universities, governments, incubators, research foundation, etc.);
(g) Lift barriers to promote the free mobility of researchers, students and teachers across African countries;

(h) Give incentives for researchers (e.g. award) for innovation, publishing and mentoring of young researchers;
(i) Hold this congress every two years, and extend it to the private sector.

2. Funding of S&T

(a) Engage the government to implement their commitment to allocate 1% of GDP to S&T, and agree to set it as part of the indicators for African Peer Review Mechanisms;
(b) Establish a dedicated budgetary S&T vote/line;
(c) Provide funding for the mobility of researchers, students, teachers and equipments among African countries;
(d) Encourage external donors and investors in S&T;
(e) Increase funding to S&T through innovative mechanisms such as: Percentage of VAT or equivalent taxes; levies on imports and exports commodities; tax relief for industries that invest in R&D; incentive aimed at encouraging the private sector to invest in R&D; percentage of debt relief, percentage of ODA.

3. Technology Transfer and domestication

(a) Establish national and regional mechanisms and appropriate structures for translating research results into consumable products using and strengthening existing institutions;
(b) Promote effective technology transfer, TT, at corporate and SME levels, through the facilitation of joint venture, incubators and technology parks;
(c) Emphasize the transfer of appropriate technologies (adaptability and diffusion) for Africa, and reinforce human capacities for negotiating technology transfer agreements;
(d) Adopt national laws that protect and regulate TT and protect Intellectual properties;
(e) Strengthen funding for TT with a view to encourage expatriates to contribute to TT in Africa;
(f) We also recommend to promote indigenous technologies and knowledge, whenever appropriate or more cost effective for local development.

CLOSING SESSION

In her closing remarks, Dr. B.O. Tema, Director of Department of HRST, said that it was the plan of AU that CASP be held biennially to feed into the AMCOST Ministerial Meetings. It was highlighted that CASP participants should not lose touch and momentum. It was said that an e-discussion would be set-up to exchange information and follow up on the Alexandria initiatives. The second proposal she put before participants was to consider setting up a leverage fund for African science, to which every African scientist could contribute a small amount (e.g. fifty dollars). Such self-help efforts are known to be extremely motivational.

In her closing statement for the Commissioner of HRST, Prof. N. Essayed thanked the all the participants, Africa's leading scientists, executives and decision-makers from industry, research institutions, government and academia, scientists from the diaspora and our

development partners who made effort to attend this prestigious and historical scientific event in Africa. She called on for closer collaboration in implementing the Africa Union's vision of peace, integration and prosperity.

She appreciated the recommendations on policies and strategies for innovation and the training of the required critical mass of scientists needed to drive Africa through S&T development. The Department was going to pass on the recommendations on the effective utilisation of indigenous knowledge and its commercialisation. She noted that the output of the various discussion groups lead to one important idea that Africa needed to coordinate its efforts and harmonize its strategies in order to solve its challenges. She called on all the participants to remain resolute and achieve victory eventually.

DECLARATION OF THE FIRST AFRICAN CONGRESS OF SCIENTISTS AND POLICY MAKERS

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DECLARATION OF THE FIRST AFRICAN CONGRESS OF SCIENTISTS AND POLICY MAKERS

First Ordinary Session
Alexandria, Egypt
27-29 October 2006

PREAMBLE

WE, scientists and policy-makers meeting at the First African Union Congress of Scientists and Policy-Makers (CASP) convened by the African Union Commission (AUC) in Alexandria, Arab Republic of Egypt 27-29 October 2006;

Guided by the principles and objectives of the Constitutive Act and the Vision of the African Union (AU);

Recognizing the critical roles that Science and Technology play in fighting poverty and diseases, stemming environmental degradation, increasing economic competitiveness and integration into the global economy, and achieving the Millennium Development Goals (MDGs);

Noting that the gap between and within poor and rich countries in terms of real income is largely accounted for by differences in the acquisition, production and utilization of Science and Technology;

Also Noting that our countries face many interrelated economic and political challenges to harness, develop and apply Science and Technology for sustainable development;

Guided by the AU/NEPAD Africa's Science and Technology Consolidated Plan of Action adopted by the African Ministerial Council for Science and Technology (AMCOST) in Dakar, Senegal 30 September 2005;

Recalling the decision of the 8th Ordinary Session of the AU Executive Council in Khartoum, Sudan, January 2006 calling on the AU Commission, the NEPAD Office of Science and Technology and Member States to be responsible for mobilizing financial and technical resources to implement the Africa's Science and Technology Consolidated Plan of Action;

Encouraged by our political leaders' decision to dedicate the AU Summit in January 2007 to focus on Science and Technology for Africa's development;

WE HEREBY COMMIT OURSELVES TO:

1. **Make** our individual and collective contributions to build and sustain human capital and improve policy and institutional conditions, conduct scientific research and advance technological innovation to solve our continent's pressing problems;

2. **Contribute** to our countries' efforts to develop appropriate strategies, policies and regulations, including intellectual property protection laws and promote private sector investment in research and development;

3. **Increase** the number of scientists, engineers and technicians in our institutions by intensifying our efforts in training and mentoring;

4. **Make** our best available expertise and knowledge to provide advice to our governments on science, technology and innovations policy issues;

5. **Intensify** our efforts to develop high level research and training programmes of higher quality and collectively work to mobilize Africa's and international resources for their implementation;

6. **Establish** and **adhere** to high standards of scientific excellence through internationally recognized peer review mechanisms;

7. **Forge** strong partnership with the African Diaspora in order to contribute to the advancement of our continent's scientific and technological development;

Accordingly, we African scientists and policy makers, hereby:

ADOPT the Congress recommendations as one of the basis for advancing the implementation of the Consolidated Plan of Action;

EXPRESS our profound gratitude to the administration of Bibliotheca Alexandria and convey to H.E. Hossni Mubarak, President of the Arab Republic of Egypt, the Government and the People of Egypt our sincere appreciation for the warm hospitality we received at the Congress.

Done at Alexandria, Arab Republic of Egypt this 29th day of October 2006

2007

Report of the first African Union congress of scientists and policy makers

African Union

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