



**ORGANIZATION OF  
AFRICAN UNITY**

Secretariat  
P. O. Box 3243

منظمة الوحدة الافريقية  
السكرتاريه  
ص. ب. ٣٢٤٣

**ORGANISATION DE L'UNITE  
AFRICAIN**

Secretariat  
B. P. 3243

اديس ابابا . ادیس ابابا

COUNCIL OF MINISTERS

Twenty-Seventh Ordinary Session

Port Louis 24 - 29 June 1976.

CM/768(XXVII)

REPORT AND RECOMMENDATION  
OF INTER-AFRICAN COMMITTEE ON AGRICULTURE AND MECHANIZATION

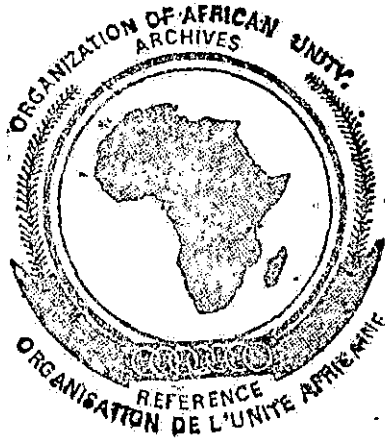


TABLE OF CONTENTS

	<u>Pages</u>
1. Agenda .....	2
2. List of Working Documents .....	3
3. List of Participants .....	4
4. Members of the Inter-African Committee on Agriculture and Mechanization ....	6
5. Report and Recommendations .....	8
6. Recommendations .....	10
7. <u>Annex</u> .....	15 - 24

Questionnaire on Agriculture  
to OAU Member States.

1. - Formal Opening  
- Election of Officers  
- Adoption of Agenda  
- Address by the Executive Secretary, Mr. A.O. ODELOLA.
2. State of Mechanization of Agriculture in Member States.
3. Exchange of information on Mechanization of Agriculture among OAU states.
4. Development of mechanization of Agriculture in Member States in the following fields:-
  - a) Farm machinery and equipments
  - b) Training of Technicians and Instructors.
5. Inter-African co-operation in mechanization of Agriculture.
  - a) Regional and sub-regional seminars
  - b) Institutes or training centres
  - c) Regional projects.
6. Recommendations.
7. Any other business
8. Closure.

List of Working Documents

1.		Agriculture and Mechanization in Africa by OAU/STRC Secretariat
2.	CAM/1	Agriculture and Mechanization in Egypt by Professor Amin Aly IBRAHIM
3.	CAM/2	Mechanization of Agriculture in Uganda by Mr. H.D. KAKETO
4.	CAM/3	Be careful when you mechanize Agriculture - Select the right machinery and equipment by Professor Amin Aly IBRAHIM
5.	CAM/4	Prospects of Mechanization in the Sudan by Dr. A.H. ABDOUN
6.	CAM/5	The state of Mechanization in the Sudan by Dr. A.H. ABDOUN
7.	CAM/6	Position of Mechanization in Western State, Nigeria by Mr. A. OSOBU

LISTE DE PARTICIPANTS/LIST OF PARTICIPANTS

- Chairman: Professor A.A. IBRAHIM,  
Professor and Head of Agriculture,  
Engineering Department,  
Faculty of Agriculture,  
Chatby,  
ALEXANDRIA (Arab Republic of Egypt)
- Rapporteur: Mr. H.D. KAKETO,  
Senior Agricultural Engineer,  
Kawanda Research Station,  
P.O. Box 7065,  
KAMPALA (Uganda)
- Egypt: Professor A.A. IBRAHIM,  
Professor and Head of Agriculture,  
Engineering Department,  
Faculty of Agriculture,  
Chatby,  
ALEXANDRIA (Arab Republic of Egypt)
- Nigeria: Mr. A. OSOBU,  
Chief Agricultural Engineer,  
Ministry of Agriculture and Natural Resources,  
IBADAN (Nigeria)
- Sudan: Dr. A.H. ABDOUN,  
Director-General,  
Engineering Administration,  
Ministry of Agriculture, Food and Natural  
Resources,  
KHARTOUM (Sudan)
- Uganda: Mr. H.D. KAKETO,  
Senior Agricultural Engineer,  
Kawanda Research Station,  
P.O. Box 7065,  
KAMPALA (Second Republic of Uganda).
- Zaire: Mr. Twyambula Mampoya MBETANI,  
First Counsellor,  
Embassy of the Republic of Zaire,  
23a, Kofo Abayomi Road,  
Victoria Island,  
LAGOS (Nigeria)

OAU/STRC Secretariat:

Mr. A.O. ODELOLA,  
Executive Secretary,  
OAU/STRC,  
P.M.B. 2359,  
LAGOS (Nigeria)

Mr. A.H.A. RAZIK,  
Assistant Executive Secretary,  
OAU/STRC,  
P.M.B. 2359,  
LAGOS (Nigeria)

Pr. M.A. RASHEED,  
Director,  
Inter-African Bureau for Soils (BIS),  
B.P. 1352,  
BANGUI (Central African Republic)

Mr. N. JOHNSON,  
Deputy Director,  
Inter-African Bureau for Soils (BIS)  
B.P. 1352,  
BANGUI (Central African Republic.)

MEMBERS OF THE INTER-AFRICAN COMMITTEE ON AGRICULTURE  
AND MECHANIZATION

- Benin: Mr. Maximilien GRIMAUD,  
Ingenieur Agronome,  
Directeur du Service de l'Agriculture,  
COTONOU (Peoples' Republic of Benin).
- Egypt: Dr. Ali A. IBRAHIM,  
Professor and Head of Department of  
Agricultural Engineering,  
Faculty of Agriculture,  
Alexandria University,  
ALEXANDRIA (Arab Republic of Egypt).
- Ghana: Mr. D.B. AMPRATURUM,  
Lecturer,  
Faculty of Agriculture,  
University of Ghana,  
LEGON (Ghana).
- Guinea: Professor Cellou DIALLO,  
Doyen de la Faculté de l'Agriculture,  
CONAKRY (Guinée).
- Kenya: Mr. J. R. GOLDSACK,  
Ministry of Agriculture and Animal Husbandry,  
NAIROBI (Kenya).
- Madagascar: Mr. Rajoeliso ROGER,  
Directeur de la Vulgarisation Agricole  
et du Paysannat,  
Ministere de l'Agriculture,  
et du Ravitaillement,  
TANANARIVE (Madagascar)
- Malawi: Mr. G.D. HORSPOOL,  
Chiledge Research Station,  
P.O. Box 158,  
LILONGWE (Malawi)
- Nigeria: Mr. A. OSOBU,  
Senior Principal Agricultural Engineer,  
Ministry of Agriculture and Natural Resources,  
IBADAN (Nigeria)

- Senegal: Mr. Le CRAZ,  
Head of Mechanism Division,  
IRAT Centre de Recherches Agronomiques,  
BAMBEY (Senegal).
- Sudan: Dr. A.H. ABDOUN,  
Director-General,  
Engineering Administration,  
Ministry of Agriculture, Food and Natural  
Resources,  
KHARTOUM (Democratic Republic of the Sudan).
- Tanzania: Honourable Godfrey A. SEMITI,  
Member of CSA and Director of Research, Training  
and Farmers' Education, Ministry of Agriculture,  
P.O. Box 2066,  
DAR ES SALAAM, (Tanzania)
- Togo: Mr. Soma AROUNA,  
Ingenieur d'Agriculture,  
Directeur des Services Agricoles et de la Caisse  
Nationale de Credit Agricole,  
LOME (Togo).
- Uganda: MR. H. D. KAKETO,  
Senior Agriculture Engineer,  
Kawanda Research Station,  
Buganda Region,  
P.O. Box 7065,  
KAMPALA (Uganda).
- Zambia: Mr. M.H. LUMINA,  
Chief Agriculture Research Officer,  
Mount Kakula Research Station,  
P.O. Box 7,  
CHINLAGN (Zambia).
- Zaire: Mr. A. DOKA,  
Directeur,  
Centre de Mécanisation Agricole de l'Etat,  
B.P. 110,  
KINSHASA (Zaire).



REPORT AND RECOMMENDATIONSOpening of the Meeting

After formally opening the meeting, the Executive Secretary, Mr. A.O. ODELOLA welcomed delegates to the meeting. He stressed that the introduction of agricultural mechanisation for the various agricultural production methods is a very important tool if we are to increase our agricultural productivity not only for home consumption but also for export. He pointed out that there is a new Joint Project (JP.31) known as "Semi Arid Food Grain Research and Development", launched to boost food grain production in the Semi Arid Zone of Africa. The project is a successor to OAU/STRC JP.26. The new project requires adoption of modern technological methods in the fields of land preparation, irrigation, harvesting, storage facilities, etc. He noted the different levels of technology which could be employed under different conditions i.e. the high level technology and the intermediate technology level. He informed the delegates that the purpose of the meeting was to make suggestions and recommendations to Member States on ways and means of increasing agricultural productivity through mechanized farming.

The Executive Secretariat would expect the Committee to feel free to make concrete suggestions for the attention of OAU Member States with a view to evolving an African policy. Such a policy recommendation would be submitted to the Scientific Council of Africa (CSA) and then to the Council of Ministers for adoption.

Election of Officers

The Committee elected Professor Amin Aly IBRAHIM, delegate from Egypt as Chairman of the meeting and Mr. H.D. KATETO, delegate from Uganda as Rapporteur.

The Meeting

The Committee expressed its gratitude and appreciation to the OAU/STRC for convening this meeting and for facilities given to members of the Committee.

The Chairman suggested to the delegates that papers submitted by delegates should be read first to give the background on the general state of affairs of mechanization of Agriculture in the respective countries. Then the discussion on these papers would follow after all papers had been read. The papers presented are listed on the List of Working Documents (Page 2). The Committee held six working sessions on 12, 13 and 14th January, 1976.

The Committee expressed its deep regret that most of the delegates had not been able to turn up. Since it is important to know the current state of agricultural mechanization in the countries not represented, the Committee suggested that a way should be sought, possibly to go and collect the necessary information rather than depending on sending out a questionnaire alone. It is agreed through practical experience that sending a questionnaire alone, is likely to result in delays and possibly failure to get the required information.

At this juncture, the Committee called upon the Executive Secretary of the OAU/STRC to give his views on this proposal. In his short comment, the Executive Secretary pointed out that funds may be difficult to get. It may as well not be possible to obtain it in time to support this proposal. Nevertheless, he stressed that the Committee should go ahead with making its recommendations and the Secretariat would present these to the Council. If funds would permit, then a panel of delegates or some officers from the Secretariat would go around to the various member states to collect the required data. He pointed out that the implementation of the recommendations made by the Committee would be the responsibility of the Council.

The Committee approved the following recommendations:

### RECOMMENDATIONS

#### 1. DATA COLLECTION

The current state of mechanization in Member States was given from four countries namely: Egypt, Nigeria, Sudan and Uganda. It is very important to know the current state of mechanization in the other Member States, and also to know the land already under cultivation and that expected to be reclaimed for agricultural purposes. This will definitely enable the Committee to determine their requirements, and type of agricultural machinery that may easily be adopted by farmers. The Committee therefore recommends the formation of three teams to visit all Member States particularly the absentee States to collect such data. The Committee has already prepared a questionnaire which will serve as a guide line to the visiting team(s) - Annex 1.

The Committee recommends that the STRC should send a copy of the Questionnaire in advance to Member States before the visit of the team takes place.

#### II TRAINING

Recognising that lack of trained manpower and personnel is a major obstacle to agricultural mechanization, the Committee recommends:-

- i) That OAU Member States who have not yet got national training centres make every effort to establish them; and those states where these facilities are already existing to strengthen them.

- ii) The Committee urges the OAU Member States who have training facilities to this effect to assist sister countries who may ask for this aid in training while they are developing their own facilities.
- iii) That OAU/STRC Secretariat formulates a project on Regional Training Centres for its Member States. It is proposed that three regional centres be established for each group of Member States i.e. one for English speaking countries, one for Arab speaking countries and one for French speaking countries.

The objectives of these centres would be:-

- a) to train staff for future national training centres.
  - b) to advise Member States on agricultural mechanization aspects and policies.
  - c) to conduct testing and research of agricultural machinery.
  - d) to set up documentation/information centres from where technical and relevant agricultural mechanization information would be disseminated to Member States.
  - e) to encourage exchange of supervisory and technical staff among Member States and also to offer facilities for "on the job" training.
- iv) Extension service is of utmost importance and vital to the success of mechanization.



III. DEMONSTRATION FARMS

In order to educate farmers and to persuade them to adopt new and improved methods of farming, the Committee recommends that OAU/STRC initiates a scheme on "mechanization of traditional agriculture" by setting up demonstration farms in pilot areas. These would serve to demonstrate to the farmers the potential benefits the farmer would gain through the use of farm machinery as compared to the traditional farming methods.

IV. MECHANIZED RECLAMATION PROJECTS

Because of the great food shortage in the world, the Committee recommends that OAU member governments should embark on large scale mechanized farming projects using modern scientific technological methods in order to substitute shortage of labour, save time and cut down production costs.

V. CONDUCTIVE FACTORS TO SUCCESSFUL MECHANIZATION

The Committee realising the problems that handicap the success of mechanization recommends to Member States:-

- i) Adequate arrangement for availability of spare parts;
- ii) Establishment of the infrastructure such as roads, etc.;
- iii) Storage facilities to be made available; and
- iv) Effective marketing arrangements.

IV. CREDIT FACILITIES

Mechanization investment is beyond the financial capacity of the majority of peasant farmers and it may be difficult for them to raise the required capital. The Committee therefore recommends to Member States to start or support ways and means of easy credit facilities.

VII. ADVISORY BODY

The Committee recommends the formation of an Advisory Organ on which Member States may call for assistance for feasibility studies in respect of large scale mechanization projects.

VIII. REGIONAL JOINT PROJECTS

Recognising that the results obtained in one country may be valid and transferrable to a sister country and that unnecessary duplication could be avoided and to permit a more efficient use of the available resources e.g. land, skilled manpower, and other facilities, the Committee recommends that Member States, through bilateral and multilateral arrangements, undertake regional joint mechanization projects.

IX. CONFERENCES AND SEMINARS

As conferences and Seminars are indispensable to allow different points of view of agricultural engineers, machine users and manufacturers to be expressed and debated;

the Committee recommends that:

Conferences and Seminars be held every other year and should have as their main theme "the future of agricultural machinery under the African conditions". The first Inter-African conference concerning "Agriculture Mechanization in Africa" should be held, if possible, in 1977 in one of the Member States.

X. BIAMA (INTER-AFRICAN BUREAU FOR MECHANIZATION OF AGRICULTURE)

From the foregoing recommendations, it is imperative to have a bureau for mechanization of agriculture. The functions of this bureau will be:-

- i) To advise OAU Member States on the problems of farm machinery and equipment.
- ii) To act as a source of all information in connection with agricultural mechanization and to disseminate this information to all Member States e.g. publishing bulletins and news letters.
- iii) To organize seminars and technical meetings, exchange of personnel, visits and to execute the recommendations of the technical committees on agricultural mechanization.
- iv) To encourage and seek funds for training.
- v) To follow up the recommended projects and to ensure that these have been implemented.
- vi) To coordinate activities of existing centres in all OAU Member States to avoid unnecessary duplication of research activities.

XI. The Committee recommends that the next meeting of this Committee be held in January, 1977 and hopes that before the next meeting, collection of data to the questionnaire will have been completed.

ANNEX I

QUESTIONNAIRE ON AGRICULTURAL MECHANIZATION TO MEMBER STATES OF OAU

Name of Country .....

1. Area of Land under cultivation .....

AREA IN HECTARES

YEAR	RAINFED	Irrigated		TOTAL
		under-ground	Surface	
1971				
1972				
1973				
1974				
1975				
Total				



2. Planned Agricultural Expansion in comparison to Existing  
Land Use:

AREA IN HECTARES

Existing		Planned		%
Year	Area	Year	Area	Increase
1971		1976		
1972		1977		
1973		1978		
1974		1979		
1975 *		1980		

\* 1975 chosen as base year.

3. Main Crops

Area of main crops in ..... hectares.

Type of crop	Year of Production					Projected area by 1980
	1971	1972	1973	1974	1975	
TOTAL						

4. AREAS UNDER CULTIVATION USING DIFFERENT METHODS

Year	Area Cultivated Under		Motorised Machinery
	Improved traditional tools	Animal Drawn implements	
1971			
1972			
1973			
1974			
1975			

\* State if possible for each main crop

5. TYPE AND NUMBER OF INTERMEDIATE TECHNOLOGY EQUIPMENT

(a) Improved Hand Tools

TYPE	NUMBER OF TOOLS					TOTAL
	1971	1972	1973	1974	1975	

(b) Animal Drawn Implements

TYPE	NUMBER OF IMPLEMENTS					TOTAL
	1971	1972	1973	1974	1975	

6. MCTORIZED AGRICULTURAL MACHINERY

CM/768 (XXVII)

Page 19.

(a) Tractors

Type of Tractor	1971				Working Tractors %	1972 Total	1973				Working Tractors %	1974 Total ... etc....
	HP Range						HP Range					
	45	45-60	60-75	80*			45	45-60	60-75	80		
TOTAL												

\* You can specify in separate sheet more detailed information, e.g. crawlers, 4-wheel drive etc,

(b) Implement

1. Operation\* .....

TYPE	NUMBER					Total
	1971	1972	1973	1974	1975	
TOTAL						

\* Tillage, planting, cultivations, plant protection, irrigation, forage, harvesting crop handling. (for each above operation a separate table of respective implements to be filled).

7. Type of Ownership of Tractors

YEAR	PRIVATE*	COOP.	STATE	TOTAL
1971				
1972				
1973				
1974				
1975				
Total				

\* State number for own use or for Customer rent (hire to other farmers).

8. Grain Processing, Drying and Storage Facilities

Types	Number	% Functioning	Any observations/ remarks on suitability relate to local conditions

9. Man-Power Engaged in Agricultural  
Mechanization and Wage-Rates (in US\$)

(i)	Farmstead Labour		Rates
(ii)	Agricultural Machinery Operators	No	Rates
(iii)	Agricultural Mechanics	No	Rates
(iv)	Technicians/Supervisors		
	(a) Field		
	(b) Workshop		
(v)	Engineers.		

10. Maintenance and Repair Facilities

	In production Area		In Distribution Centres	
	Workshops	Mobile W/shope	W/shops	Mobile W/shops
Private Farmers Cooperative State Dealers <u>Corporation/Coy.</u> a) Private b) Quasi-Govern- ment				

11. Spare Parts

AVAILABILITY	IN COUNTRY	IN PRODUCTION AREAS
Average Percentage Average Time Lapse		



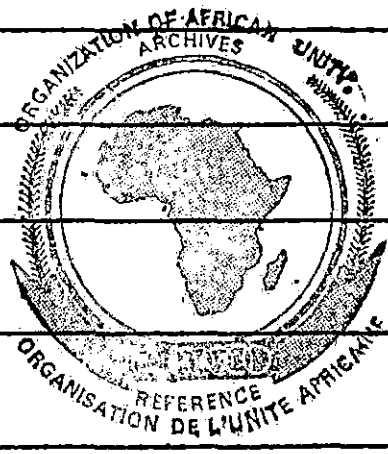
TRAINING

12: TRAINING FACILITIES

Institu- tions	Vocational	Agric. Mech. Operator Training Centre	Agric. Mecha- nic Trai- ning Centre	Inter- medi- ate Man- Power e.g. the Super- visory Sta- ff	Gradu- ates Tra- ining
Locations Entry Qua- lifications Duration of Training Pass-out Qualifi- cations					

Products of the Training  
Institutions

Year	Number of Man-power
1971	
1972	
1973	
1974	
1975	
TOTAL	



13. Any Additional Relevant Information

AFRICAN UNION UNION AFRICAINE

African Union Common Repository

<http://archives.au.int>

---

Organs

Council of Ministers & Executive Council Collection

---

1976-06

# Report and Recommendation of Inter-African Committee on Agriculture and Mechanization

Organization of African Unity

Organization of African Unity

---

<https://archives.au.int/handle/123456789/9670>

*Downloaded from African Union Common Repository*