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ECA ONGOING ACTIVITIES AND PROPOSED ROLE IN MEDIUM-
AND LONG-TERM PROGRAMMES IN THE DROUGHT AFFECTED COUNTRIES
OF THE SUDANO-SAHELIAN ZONE

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Introduction

1. This document is meant to summarize the position of the United Nations Economic Commission for Africa in relation to the medium- and long-term plans for reaching lasting solutions to the problems generated by cyclic drought in the Sudano-Sahelian zone of Africa.

I. ECA's Conception of Medium- and Long-term Development in the Sudano-Sahelian Zone

2. The secretariat holds the opinion that:

- (a) The agro-meteorological factor is only one aspect of the problem, and that the ecological deterioration of the environment is an effect rather than a cause. The main factor responsible for the problem is slow and imbalanced economic and social development relative to the rapid growth of human and animal population. What has mainly lagged behind is development of land capability including infrastructure, and a viable and compoundly strengthened 'production base' well supported with the relevant institutional and policy framework;
- (b) An effective medium-to-long-term plan should concentrate on the creation and development of such a 'production base' starting with improved knowledge of production potential and comparative land capability, but should also pay adequate attention to the task of rehabilitation of deteriorating land especially in the purely Sahelian zone;
- (c) Sufficient attention should be given to the long-term need for permanent, settled and more productive agriculture and to the need to broaden the economic base in these countries, which depends heavily on agriculture, by looking into possibilities of developing agro-based industries, energy resources and intensive mineral exploration and development;
- (d) Knowledge about the development potential of the Zone is fairly advanced, especially in the fields of agricultural development resources, and that research material, technology and development policies relevant to the situation are available elsewhere in Africa and overseas. What is needed is progressive policy orientation, sound planning and programming, and the transfer and adaptation of such technology;

- (e) A great deal more projects and programmes can be undertaken jointly, and at relatively lower cost in the form of multinational ventures with external assistance than has hitherto been contemplated;
- (f) The Permanent Inter-State Committee, based in Ouagadougou, should be the sole agency responsible, on behalf of the six affected countries, for programme formulation and co-ordination, and for procurement and administration of foreign aid;
- (g) Co-ordination of United Nations activities in the Sudano-Sahelian Zone would be more expedient, effective and fruitful if it were closely associated physically as well as functionally with the Inter-State Committee. ECA will be represented by its Subregional Office for West Africa based in Niamey, supported by the West African ~~Inter-disciplinary Advisory Team (UNDAT)~~;
- (h) The starting point in the long-to-medium-term development plan should be a thorough review, evaluation and readjustment of ongoing national, multinational and international projects and programmes, especially with regard to maximizing consistency of programme content and priorities with the declared objectives of the long-term plan. This exercise should precede or at least be considered in close association with the evaluation and programming of the Inter-State Committee proposals;
- (i) The most immediate task that the Inter-State Committee should undertake is the strengthening of its technical secretariat. A multidisciplinary group of highly qualified and experienced specialists should be internationally recruited for each sector. These specialists should, with the help of bilateral and multilateral agencies, embark on the detailed programming, formulation and investment orientation of a coherent and well integrated medium/long-term plan, including the preparation of project implementation plans and schedules;
- (j) Development financing of medium- and long-term projects should take adequately into account recurrent and operational costs likely to be incurred before the project, and/or the country can generate its own recurrent budget provisions;
- (k) Water shortage is the direct result of drought and water is required for many needs like human and animal consumption, agriculture, mining and industry, etc. Priority should therefore be accorded to the development of water resources of the Sahel. Such development will have to be based on properly collected data, comprehensive technical studies, co-ordinated planning and so on. Regional planning will be necessary for international river basins and international groundwater resources;

(1) In the planning, design and implementation of major road networks, adequate attention should be given to:

- (i) The natural resource and research basis of road design, construction and maintenance;
- (ii) The relevance of new automotive technologies for road transport in the area (including off-road and surface reaction vehicles, solar batteries, etc.). The argument here is that innovation may well circumvent some of the problems of transport in such regions.

II. ECA's Analysis of and General Comments on Inter-State Committee's Project Proposals

A. Agriculture and Rural Development

3. These proposals show substantive improvement over the original proposals of the Technical Committee of Experts. They have taken account of the critical and constructive comments contained in the statement made by ECA's representative in Ouagadougou on 8 September 1973. For a useful in-depth analysis and evaluation, however, they need to be spelt out in more detail showing background and justification, relation to existing development capacity, organization and management requirements, etc. This is one of the immediate problems which the Inter-State Committee ought to examine with external assistance.

4. Even though a good effort has been made to increase the relative number of regional projects vis-à-vis national projects, there are still many fragmented projects and programmes which can be regrouped into multinational propositions in a manner which will improve technological efficiency and rationalize the use of capital and manpower. Examples of these are:

- (a) A multinational or regional underground water development corporation with country branches or agencies which will combine ground water surveys with procurement of modern equipment and implementation of a well planned and equitably distributed drilling programme;
- (b) All the seed improvement and multiplication project proposals can be again grouped under one multinational company which would operate central laboratories and sub-stations and import, adapt and propagate improved plant materials;
- (c) A multinational soil survey and central laboratory can also be established along the same lines;

- (d) A Trans-Sahelian grain storage corporation could also be conceived on a multinational basis, and such an institution, if created, would be able to make use on a larger scale, of the latest technological developments in food grain storage, and could approach the problem at both village and regional levels.

5. All these and other multinational propositions can be semi-autonomous satellites of the Inter-State Committee. In fact, the more multinational projects and programmes conceived and developed, the more there will be to be located and allocated on a rational and equitable basis.

6. It is hoped that while the medium- and long-term development plan will be operative in two fronts, viz., rehabilitation of deteriorated areas and development and settlement of new areas of relatively high potential, most of the proposed projects, especially those related to underground water and range management development, will concentrate on areas of high potential. This is to avoid the recurrence of the same problem in the near future. Priority should therefore be given to assessment of development potential and project preparation in such areas, but this should not preclude taking parallel measures to rehabilitate the ecologically marginal areas.

7. Very few countries have proposed integrated livestock development projects. This is extremely essential. The development of water resources, pasture, animal feed, marketing and stock routes should be conceived and formulated in an integrated way. Otherwise these countries will run the risk of over-stocking and/or over-grazing. Livestock development programmes should also go hand in hand and should, as far as possible, be chronologically consistent in the different countries, in order to reduce possible and undesirable drifts of human and animal populations across national borders to the extent of intensifying ecological imbalances.

8. Although it is recognized that there will be a strong demand by nomads for the immediate replacement of their lost cattle, an over-enthusiastic response is likely to re-establish the pre-condition for future disaster. To the extent that it is politically and socially feasible, the proposed projects for the "reconstitution" of the lost herds should be closely associated, if not fully integrated, with a supervised credit scheme which will programme and co-ordinate cattle purchase with progress in ecological rehabilitation, opening of new relatively high potential areas, and the development of water resources. Reconstitution should also take into consideration the desirability of improved animal type replacements.

9. There is mention of rinderpest in some national project proposals. It is however understood that the OAU/UNDP/Bilateral Aid "Intra-African Campaign against Rinderpest" has successfully eradicated this disease in West Africa and that what is actually needed is follow-up and continuity of revaccination. Diseases which are more significant in the area are the contagious bovine pleuropneumonia (C.B.P.), Foot-And-Mouth and Trypanosomiasis and these again should

be combated on a regional basis for effective and lasting coverage. In fact a new campaign has already been started by the OAU in the countries of the Lake Chad Basin for the control of the contagious bovine pleuro-pneumonia (C.B.P.).

10. In all these and other livestock development ventures, there is need to integrate disease control very closely with development of animal production. A medium-term plan would link fattening programmes and general livestock improvement with slaughter house and meat transportation facilities, as well as with pasture and development of stock routes. The outline of the Joint ECA/FAO Study on Livestock Development in West Africa is being modified to take this into consideration.

11. An inventory of livestock situation in each country is necessary for planning livestock development, but only one country (Mali) makes any reference to such a need. Livestock censuses as related to distribution of pasture and water resources can now be successfully undertaken by aerial photography which can also be arranged on a multinational basis. This is combined with extensive ground checking on a sampling basis.

12. It is envisaged that programmes and projects related to the rehabilitation of the ecologically deteriorating areas as well as those pertaining to resettlement in the newly opened up developed areas, will entail human resettlement activities. These, as well as many other development projects, would call for mobilization of the people to assure their effective and meaningful participation in the projected development. Therefore, the human factor should constitute a basic element in any programme of integrated development.

13. It is noted that some of the proposed project costing is ad hoc, and that some of the different country proposals for the same items show a considerable discrepancy in unit costs. This will have to be rationalized.

14. Problems of resettlement of persons displaced physically and occupationally, and of nomads affected by the drought, as well as problems of adaptability to the exigencies of the current situation and the future development effort should be included in the programme.

15. The social component could be a built-in feature of proposed projects - e.g. water management for villages, agriculture and livestock programmes, environmental programmes such as river blindness eradication, herd reconstitution programmes, control of bush fires, etc. A programme of rural animation such as outlined by the World Bank or as represented by ECA rural development programme for the West African UNDAF should be given critical attention.

16. The emphasis on re-establishing and improving the 'production base' suggests that projects should be linked to specific areas, e.g. item 7 under Upper Volta, items 5 and 7 under Mauritania, item 1 under Senegal, items 7, 8 and 9 under Chad, should be given higher priority in feasibility studies vis-à-vis other proposals.

17. Only one country (Chad) refers to three nurseries though it is difficult to see how large-scale reafforestation can be effected without extensive nurseries and without extensive knowledge of soils.

18. Although ECA has limited technical resources which will in turn limit its scope of assistance in the proposed projects, it has the advantage, by virtue of its location and multi-sectoral structure, to assist in the formulation and evaluation of the proposed projects and programmes, especially those of multinational magnitude with adequate regard to inter-sectoral and multidisciplinary linkage. ECA is, therefore, prepared to work closely with the appropriate specialized agencies.

B. Development of Natural Resources

19. The water resources development and utilization projects have been suggested mostly on ad hoc basis. The development of these resources should be very carefully planned and well co-ordinated if one is not to run into serious problems in the future. Some very urgent schemes may be started, but water utilization on a large scale should be based on a proper water resources survey which will establish the available resources, their needs for various uses, possible development sites, priorities to be accorded, etc. Further, data (hydrological, hydrogeological and meteorological) collection networks should be strengthened or established; this basic data should be processed and published, data should be analysed and hydrological and hydro-geological maps prepared. These items of work which will form the basis of all medium- and long-term water resources development projects have not been included in the programme of Permanent Inter-State Committee.

20. The next United States Skylab mission will be conducting a survey of water resources of drought affected areas. With the recent signing of an agreement with USAID and the Massachusetts Institute of Technology, it is hoped that the results from the Skylab mission will contribute significantly to the knowledge of water resources in the area, leading to effective planning of their utilization.

21. At many of the outlying areas ground water will have to be utilized. Use of solar and wind energy for lifting ground water in these areas should be considered. This has not been included in the programme.

22. Senegal has been pressing UNDP for a long time for assistance in the creation of a National Research Centre. They are now in favour of including this project under the drought programme. ECA would be in a position to contribute to the planning of such a centre.

23. The hydrological aspects like high and low discharges, water depths during various seasons, their fluctuation, etc., are vital for river transport. The water resources experts should, therefore, be associated with any survey or planning of river navigation.

24. No provision has been made for water research in the proposed applied research institute. ECA has in its work programme, establishment of a Water Resources Development Institute in West Africa. Such an institute is necessary for the subregion and should be included in the programme.

25. In the programme is included establishment of a subregional meteorology centre. This centre should cover hydrology as well and may be called a hydro-meteorological centre. Processing and publication of hydrological data and preparation of hydrological and hydro-geological maps can be carried out at this centre. This centre is to be equipped with a computing unit.

26. ECA has conducted a survey of manpower requirements for West Africa for water resources development. ECA can help in the programme of creation and strengthening of institutions dealing with the training of technicians and high-level officers in the field of water management.

27. Under the programme item on the campaign against river blindness, hydrological information will be needed.

28. Construction of major dams. ECA has not been responsible for carrying out technical studies on the Sélingué dam, the Delta dam, the Manantali dam, and the possible sites on the Gambian river. ECA has, however, been actively involved in discussions, surveys and investigation, that have taken place in the various river basin commissions concerning general strategies in river basin development.

- Sélingué dam has been studied in detail under UNDP/OTC projects and promises to be beneficial.
- The Delta dam and the Manantali dam have also been studied in great detail under UNDP/OTC projects and are quite promising and will be beneficial.
- The Tossaye and Kandadji dams on the Niger are within the Liptako-Gourma area for which ECA has current responsibility. These dams have not yet been studied in depth and further work is required.
- Studies are under progress under UNDP/OTC project for selection of suitable dam sites on the upper Gambia river.

29. Energy. Conceptually, the problem of energy deficiencies in the Sudano-Sahelian Zone can be met in three ways:

- (a) By importing petroleum and natural gas directly from neighbouring countries especially Algeria and Libya;
- (b) By exploring, developing and processing local deposits of petroleum and natural gas;
- (c) By the use of wind and solar energy.

30. None of these can be ruled out in view of:

- (a) The construction of the trans-Saharan highway (which may be paralleled by another highway bearing south-eastwards from Libya;
- (b) The exploration for oil and natural gas (favourable indications) in Chad; it should also be noted that oil exploration is proceeding in Mali (Tin Fouye and Djoua); Mauritania (Taudeni basin which runs across northern Mali into Southern Algeria); Niger (Agadem, Djado and Tolak area, Dosso). Most of these areas are conveniently located in or near the Sudano-Sahelian region;
- (c) The fact that solar energy has been effectively used for domestic purposes in Israel for many years and in other countries as well.

31. From the point of view of meeting immediate needs and because of the wide dispersal of communities, characteristic of semi-nomadic societies it would seem that solar energy offers the best prospects in the short run. The technology for domestic use is already established. What is therefore required is a modest research programme to determine the energy output of the sun at selected points in the Sudano-Sahelian region over at least one year to determine the modification to existing solar energy appliances that would be required. It is believed that such a project can and should be mounted without excessive cost and as early as possible.

32. Mineral exploration and exploitation. Fifteen years ago Libya, Mauritania, Botswana - to cite only a few - were considered doomed to permanent underdevelopment. The change that has occurred in these areas and that will occur in the Liptako-Gourma region has been the result of the accidental interest of, and the skills commanded by, private companies with a global outlook. They do not reflect the systematic and purposeful search by Governments. The major determinant of exploration by such countries, is the degree of risk in exploration. Earth resources satellites and, in due course, the output from the international geological correlation programme are likely to reduce such risks considerably, but this can only occur to the extent that Governments acquire (individually or jointly) capabilities for topographic and geological mapping, for prospecting and sampling and for techno-economic evaluation of deposits.

This would have the great advantage of reducing the risks to private enterprise, providing Governments with knowledge essential for negotiating exploration and mining agreements and for determining the natural resource base of industrial development. Even more pertinent to the immediate subject, such increasingly detailed knowledge of sub-surface geology is essential for the long-term planning of water resource exploitation.

33. The most urgent requirements for the medium term are:

- (a) A solid multinational programme for African manpower development in the earth sciences, mining and metallurgy;
- (b) The building up of institutions for processing and analysing data in the first instance and the expansion of capability for ground follow-up and mapping;
- (c) Increased competence in the management and economics of metal and hydrocarbon mining and marketing. This need not wait for (a) and (b).

34. Applied research. An applied research institute is meaningful neither for its title, the eminence of its staff nor its size, but for the relevance of its work to issues and problems of today, and for the effectiveness of its solutions in action. In other words, an applied research institute whose recommendations are not accepted and used is a theoretical research institute.

35. The principle which ought to be applied at this stage is to evaluate closely what exists on the ground in terms of a pre-determined programme of applied research. It is only on this basis that a decision can be made either to establish a new institute or to build on what exists.

36. Building on what exists may mean:

- (a) Converting all or some of the existing institutions into one institute (like a federal university); this ensures lighter control over budget, programmes, etc.;
- (b) Merely setting up a mechanism for programme co-ordination whilst allowing each institution its independence.

Either approach has advantages and difficulties but must be preceded by an evaluation of what is on the ground.

C. Transport and Communications

37. Railways. Railway development is regarded as mainly connected with mineral exploitation almost exclusively for extra-African exports. Thus the railway extension (with the exception of Dakar-Bamako) rests on a more intensified exploration for and evaluation of mineral deposits.

38. The proposals all relate to the exploitation of the mineral potential of the Liptako-Gourma Project area; but for long range planning of railways much more extensive and intensified exploration would be required. A pattern developed in response to our present grossly inadequate knowledge of mineral and hydrocarbon resources may prove costly in the light of discoveries within a few years. A considerable extension of knowledge of this subject presently available to ECA and its member States is anticipated as a result of the work of the US earth resources satellites (including Skylab I and II).

39. As regards the Dakar-Bamako line, the improvements required are so extensive that serious consideration should be given to the possibility of using the programme for improvements to develop the local metal and engineering industries, especially when combined with the less complex forms of engineering inputs into the expanding mining, transport and building construction sectors. The development of railways have often provided the major push to the growth of engineering in developing countries elsewhere.

D. Manpower

40. The problem of manpower is likely to prove acute. First, there is the question of the availability of enough suitable holders of the baccalaureat for university and post-university level education and training. If the content and methods of education had been adapted to the needs of the region, all that would be needed would be a programme for accelerating output.

41. Secondly, there does not exist sufficient institutions for university and post-university level study, research and training with specific orientation of at least part of their programmes to the basic knowledge requirements of the Sahelian Zone, viz., specialization in:

- (a) Hydrology and hydrogeology;
- (b) Water resources planning and management (including economics);
- (c) Cartography (including airborne surveying, photogrammetry and advanced photo-interpretation);
- (d) Plant genetics;
- (f) Soil science;
- (g) The earth sciences and mining engineering with special reference to metallic and non-metallic minerals;
- (h) A multinational mineral resources development laboratory (such as was to be located in the Ivory Coast).

42. It must not be forgotten that arid lands are to be found in every region and that a great deal of expert knowledge exists on their problems. Attention is also invited to the work of:

- (a) The Committee on Arid Lands of the American Association for the Advancement of Science;
- (b) The Arid Lands Agriculture Development Programme of Ford Foundation.

III. ECA's Role in the Medium- and Long-term Development Plan - Ongoing Activities

A. Agricultural and Rural Development

43. The Liptako-Gourma integrated development project. ECA has the responsibility for the feasibility studies (multi-sectoral) and programming of this project in an advisory capacity to the Liptako-Gourma Development Authority in which the three countries involved, namely, Mali, Niger and Upper Volta, are represented. An ECA-directed multidisciplinary mission has been commissioned and has undertaken and completed a study on five main sectors, namely: Geology and Mineral Resources, Agro-pastoral Development, Transport and Telecommunications, Energy and Water Resources and Integrated Rural Development. Following an evaluation by the Liptako-Gourma Authority of these sectoral reports ECA is intending to undertake detailed Phase II sectoral and inter-sectoral in-depth studies, taking into full account the situation generated by the Sahelian Drought. Phase II will be a Master development plan which will include the full identification and investment orientation of projects and programmes. It also seems possible that some projects and programmes can be identified and prepared for investment based on the findings, recommendations and conclusions for the already completed Phase I studies. It is noted that some of these projects, especially in the water resources development subsector, have already been identified and included in the Inter-State Committee proposals. Additional financing is required for undertaking the Phase II studies, the exact magnitude of which will be determined in due course.

44. Livestock development. A West African Livestock Development Project has been prepared for UNDP financing and joint participation with FAO in close consultation with the Governments of the West African Subregion. The study, which is also development and investment-oriented, was originally scheduled to start during the second half of 1973 but has been postponed to begin early in 1974 mainly because of the need to modify its scope and depth in order to accord high priority to the requirements of the Sudano-Sahelian Zone. The project will, more particularly, look into the livestock development possibilities using modern methods and techniques, including stratification, feed-lot fattening and establishment of disease-free zones, especially in relation to the development of traditional trade in livestock between the Sudano-Sahelian countries and the consumer centres in the coastal countries. The study should also be able to assess in fairly precise terms the development and settlement capacity of areas of relatively higher potential in the wet savannah which have hitherto been uninhabitable as a result of endemic human and animal diseases, especially river blindness and trypanosomiasis. It is also hoped that the Livestock Development Study will objectively consider the comparative advantage of setting up slaughter facilities and meat processing in the countries of origin vis-à-vis the countries of consumption, at least in the medium-term when the present problems of overstocking in the Sudano-Sahelian Zone will have to be effectively solved.

45. Expansion of agricultural production, trade and subregional co-operation in the field of agriculture. This is a subregional study which is being jointly undertaken with FAO, through their Joint ECA/FAO Agriculture Division. Phase I was completed for West Africa in 1971 and an in-depth Phase II study is scheduled to start early in 1974 with support from UNDP. The study will put particular emphasis on the expansion of production of basic food products in an attempt to reduce the heavy dependence on imports of food in West Africa. A pilot study of the same project, which is under way, has already been modified to include two countries out of the six drought affected Sahelian countries, namely, Niger and Upper Volta. The pilot study will be particularly concerned, within the framework of over-all food production in these countries, with identifying the main constraints (political, infrastructural, resource availability and institutional) impeding agricultural development and expansion of food production and intra-subregional trade. Both the pilot and the main study will examine the long-term problems and advantages of economic co-operation along the Trans-Sahelian Axis as well as between the Sahelian and the Guinean Zones, and both studies will lead to the identification and pre-identification of concrete projects in these areas.

B. Development of Natural Resources

46. Planning and development of hydrometeorological networks. ECA in collaboration with WMO is working on the planning and development of hydrometeorological networks in Africa but the available manpower and funds are extremely small. The following requests have been made to ECA from the area under discussion:

- (a) Niger River Commission: to help in setting up meteorological networks and training, and to help in mining research;
- (b) Mali: to find practical solutions to the problems of hydrological and meteorological services in the field of water resources management and to find effective means for the solution of servicing problems for hydrological and meteorological networks.

47. Water resources survey of African countries. This survey is included in the work programme of ECA and steps are being taken to formulate a project in co-operation with OAU, WMO and other interested specialized agencies: such a survey is essential for the Sahelian countries as this will form the basis of a well planned and well co-ordinated water resources development so as to meet the various needs -- present and future.

48. The first Governing Council meeting of UNEP (June 1973) agreed to mount a concerted programme to help countries control the loss of productive soil through erosion ... desertification ... and to help countries in land reclamation,

which is ecologically compatible with special emphasis to be laid on arresting the spread of the desert; and to support, encourage and initiate national and international efforts for efficient drought forecasting and to help countries in mitigating the consequences of drought. A budget of US\$0.5 million was agreed upon for 1973.

49. Discussions are due to be held shortly between ECA and UNEP representatives, and current ECA projects in the Sahelian Zone will feature prominently in these discussions to find out what forms of co-operation could be initiated between ECA and UNEP to secure additional resources for dealing with problems of the Sahelian Zone.

50. Onchocerciasis control. The ECA has been closely connected with programmes for onchocerciasis control in Dahomey, Ivory Coast, Ghana, Mali, Niger, Togo, and Upper Volta - an area in West Africa where the disease is endemic and where the populations are so seriously afflicted that they abandon fertile farm lands leading to serious economic losses.

51. In June 1973, ECA was represented at a meeting called by the World Bank and attended by representatives of WHO, FAO, UNDP, Canada, Dahomey, France, Germany, Ghana, Mali, Norway, U.K., U.S.A. and Upper Volta. Results of the work done by a Preliminary Mission to the countries were discussed and a tentative 20-year programme and budget suggested. These will be discussed at a future meeting, and a definite work programme started in 1974. ECA is quite satisfied with the work presently being undertaken with IBRD financing in some of the countries, and hopes to see it expanded and consolidated.

C. Transport and Communications

52. Telecommunications. The aim of the surveys which resulted in the current Pan-African Telecommunication Network Plan was to design an international network involving the minimum capital outlay and with adequate capacity for the expected traffic up to 1990.

53. Because a considerable number of transmission routes in the Sudano-Sahelian Zone are not economically viable and will find it difficult to attract adequate loans, it has been agreed by participating telecommunication administrations that the relevant segment of the network should be considered as an integrated single project and implemented in full, and that the implementation of the various parts must be co-ordinated. To assist in achieving full implementation of the medium-term programme, a Telecommunication Investment Fund under the auspices of ADE with the backing of the Governments concerned is to be set up soon.

54. Roads. Of the seven roads recommended at the Ouagadougou meeting of the Ministers of the six Sahelian countries affected by the drought, four (Trans-Sahelian, Koupéla-Pada-Niamey, Niamey-Ndjamena and Tambacounda-Kayes) are being studied by the secretariat in connexion with the development of

the Trans-West African Highway network in general, and the realization of the Dakar-Ndjamena route in particular. It is planned to hold a meeting at Niamey from 9 to 11 January 1974 to discuss ways and means of expediting the completion of an all-weather Trans-Sahelian Road from Dakar to Ndjamena. The meeting will be attended by the eight countries directly involved (Cameroon, Chad, Mali, Mauritania, Niger, Nigeria, Senegal and Upper Volta) and by representatives of interested non-African countries and institutions.

55. The remaining three road projects, namely, Mopti-Gao-Niamey which would link at Gao the Trans-Saharan Road and the Trans-West African Highway Network, Ouagadougou-Mopti and Dori-Tera-Niamey are included in the work programme of the Liptako-Courma Authority, which attaches great importance to their improvement and modernization.

56. Thus all the seven road projects recommended by the Ministers have so far been receiving priority for their improvement in one way or another and the secretariat supports their expeditious completion to an all-weather standard.

IV. ECA's Activities for which Additional Support is Needed

A. Agriculture and Rural Development

57. West African regional food reserves. A preliminary study was undertaken by USAID in 1969 on the desirability and feasibility of establishing regional food grain reserves for crops of West African countries. A more detailed feasibility study and investment plan were considered necessary. ECA, FAO and OAU, in close consultation with the respective Governments, have sought UNDP and other extra-budgetary support for such a study but results have not been encouraging. The current and projected situation in the Sahelian Zone as well as the dim outlook of world food grain supplies, and the recently declared United States commodity surplus policy, make it imperative that a more in-depth investment-oriented study be undertaken. The OAU has recently expressed their wish to participate in and to contribute financially to such a study. ECA will assume over-all responsibility in the direction of the study if the necessary financing can be made available. High priority should be accorded in this respect to the requirements of the Sahelian Subregion.

58. In 1966, an ECA mission to the three countries of Mali, Niger and Upper Volta submitted a report on Problems and Prospects in Rural Development in the three countries and made pertinent recommendations. This report could be up-dated and if funds are available, recommendations implemented.

B. Development of Natural Resources

59. Water resources Development Institute for West Africa. ECA has in its work programme the establishment of such an institute for West Africa but could not implement it due to lack of funds. This institute is very important for Sahelian countries.

60. Training in the field of water resources. ECA has conducted a survey of manpower requirements for West Africa for water resources development. ECA can help in the creation and strengthening of institutions dealing with the training of personnel in this field provided necessary funds are made available.

61. Discussions are due to be held shortly between ECA and UNEP representatives, and current ECA projects in the Sahelian Zone will feature prominently in these discussions to find out what forms of co-operation could be initiated between ECA and UNEP to secure additional resources for dealing with problems of the Sahelian Zone.

C. Transport and Communications

62. Inland waterways. As regards inland waterways the position is as follows:

- (a) The Canadian aid agency has not only completed a study of the navigability of the Middle Niger but has undertaken much of the improvement work actually making that stretch of the river navigable.
- (b) If indicated, priority could be given to ECA's projected studies (in 1974) of inland waterways in West and Central Africa for which bilateral aid has been requested from Finland. The programme of co-operation envisaged includes:
 - Organization of data on the seasonal flow of river systems,
 - Flow regulation and channel improvement,
 - Determination of suitable types of river craft,
 - Location design and construction of river ports,
 - Co-ordination of port dues, freight rates and tariffs,
 - River transport communication,
 - Standardization of traffic regulations,
 - Licensing of operators,
 - Simplification of customs and transit regulations and documents,
 - Training of port and boat personnel,
 - River development and maintenance engineering capabilities,
 - Organization and management of river transport,
 - Finance.

63. Airfreight transport. Philips' Report pointed out that cheap air cargo could provide the quickest and easiest solution to some of the transport problems of land-locked, least developed (and semi-arid) countries in West Africa. It is proposed that this Zone be included in the study of airfreight development which will begin in December 1973. A denser and more concrete study relating to the needs of the area project will require to be re-inforced with additional resources.

V. Assistance to Inter-State Committee on Project Preparation, Planning and Evaluation

64. ECA is prepared to contribute appropriate manpower to a multidisciplinary team entrusted with the task of project and programme preparation which will work very closely with the Inter-State Committee. ECA will be particularly interested in the preparation and evaluation of some of the proposed multi-national (subregional) projects, such as the Tossaye and Kandadji dams, which are included in the Liptako-Gourma Project, the proposed roads and feeder roads, subregional training and research institutions and may, in close collaboration with the United Nations Agency for the Environment (UNEP), assist in the preparation of plans and programmes aimed at the rehabilitation of the deteriorating environment.

65. In addition to the manpower resources which will be committed from the Regular Programme to carry out ongoing and new projects outlined under Section III above, ECA is prepared, for the specific task of assisting the Inter-State Committee on project preparation, planning and evaluation, to commit most of the services of the West African UNDAT (based in Niamey, and whose estimated budget is about US\$ 400,000 for the 1974-75 biennium). It has also been decided to adapt the professional structure of this team to meet the nature and requirements of the Sahelian Programme. The breakdown is given below:

<u>Field</u>	<u>Title</u>	<u>Positions</u>
Agriculture	Professional posts at appropriate level and subject matter	3
Rural development	Assistant professional posts	2
Water	Water resource development and hydrology	2
Economics	General economist	1
	Assistant economist	1
Transport	Transport economist	1
Mining	Mining engineer	1
	Total	<u>11</u>

66. The secretariat organized a permanent Inter-Divisional Working Party on Drought in the Sahel. In addition it has established a Liaison Group to communicate directly with the Special Sahelian Office.

67. ECA and West African UNDAT. The ECA/FAO Agriculture Division will continue to be the 'Contact Point' and co-ordinator, while the ECA Subregional Office for West Africa (Niamey) will be the field contact point especially with regard to the services of the UNDAT.

68. ECA also being the centre responsible for the co-ordination and servicing of the African Plan for the Transfer and Application of Science and Technology, is prepared to service in Addis Ababa and co-ordinate any meeting sponsored by the Inter-State Committee, with the participation of the bodies of the United Nations system and interested bilateral donors, for determining the nature, magnitude and scope of scientific and technological outlays applicable to the Sahelian problems.

ANNEX I. STATEMENT BY THE REPRESENTATIVE OF THE ECONOMIC COMMISSION
FOR AFRICA TO THE UNITED NATIONS INTERAGENCY MEETING
ON MEDIUM-TO-LONG-TERM MEASURES REQUIRED FOR
REACHING LASTING SOLUTIONS TO THE EFFECTS
OF DROUGHT IN THE SUDANO-SAHELIAN ZONE

Geneva, 28 June 1973

Introduction

By virtue of its mandate and programme of work, ECA is primarily concerned with medium- and long-term programmes of regional character, aimed at finding lasting solutions to the complex problems of balanced development and sustained high levels of agro-economic productivity in the Sudano-Sahelian zone. Thus ECA is more specifically concerned with relevant questions of basic strategy and development policies.

The Nature and Real Causes of the Problem

We believe that the efforts, programmes and measures aimed at long-term and lasting solutions to the complex problems generated in the zone, should be preceded by a thorough examination of the roots of these problems. Cyclical agro-metrological changes, however persistent, extensive or cumulative they might have been, are only one of the problems. What is really significant and more relevant to long-term development is the temporal and increasing imbalance in agro-social and agro-economic dynamics, the rates of growth of human and animal populations which outstrip that of developed land capacity and hence agricultural productivity. This has been due mainly to defective economic structures and inconsistent development policies especially with regard to the philosophy and rationale of allocating scarce resources between sectors - a relatively small share being allocated to agricultural development - and to the inconsistency in the operative criteria of investment within the agricultural sector. Although this is primarily the prerogative of individual Governments, the international community shares the responsibility. It is indeed opportune now to examine our strategies, evaluate the long-term consistency of our programmes and our way of doing things.

Ongoing and Projected Relevant Programmes by ECA

The ECA Executive Committee in its ninth meeting (Addis Ababa, 18-22 June 1973), examined the situation in depth, as reflected in its report and resolutions. The Committee devoted relatively more time to the long-term aspect of the problem.

Among the basic documents prepared for the Executive Committee meeting was a report titled "ECA Ongoing Activities in the Sudano-Sahelian Zone". The report outlines previous, as well as, current and projected studies, programmes, and activities being undertaken by the Commission with relation to the medium- and long-term solutions of the problems of slow and low

equilibrium socio-economic development in the effected zone. It also contains a summary of the main findings, conclusions and recommendations of a study undertaken for the Commission by an interdisciplinary group of consultants as early as 1964 on the problems of agricultural and rural development in three of the affected countries namely, Niger, Mali and Upper Volta. There is indeed very little we can add now to our knowledge of the basic agro-ecological, agro-economic and structural constraints (including constraints due to a marginal ecology and a vulnerable environment), than what was written in this document.

The study was based on extensive field visits in the three countries, and dealt analytically with basic problems of output and productivity in the fields of crop and livestock production, land use and land capability, forests, fisheries, nutrition, rural life and institutions and related policies. The fundamental feature of the study is the emphasis against the background of a marginal and hazardous environment, on agro-ecological and land use planning, and on concentration on the 'production base', as the main measures which can lead to long-term sustained and dynamic growth in agricultural productivity and hence over-all economic and social development. The study highlighted several national and multinational measures towards achieving these objectives.

This report was sent to all Governments concerned as well as to the relevant international institutions, including the World Bank Group. Member States were expected to include requests for implementation of the recommendations within their country programmes. Such efforts have been fragmentary and hardly interlinked, and therefore the over-all impact has been negative. On the part of the United Nations system, the response has been retarded and poorly co-ordinated, but some recent efforts in the fields of multinational lake and river basin development and integrated rural development by UNDP, FAO and the World Bank Group, have indicated at least some directional consistency. However, for a real and lasting impact, more resources, agreed co-ordinated effort, and rational programming are needed at all levels.

Meanwhile, and since 1968, ECA has oriented its subregional studies in the field of agricultural production and trade, which are undertaken jointly with FAO, more towards solving the basic structural constraints impeding dynamic development. Phase I of these studies, which has been completed for the four subregions of Africa, has indicated a wide scope and possibilities for expanding agricultural production through the radical transformation of the production base, more rational allocation of resources and the promotion of intraregional trade.

Phase II of these studies is to be more comprehensive and is to be given as much action and investment orientation as possible. It will start with the West African subregion, hopefully early in 1974. In this in-depth study, the long-term problems of development of the Sudano-Sahelian zone, will be considered in the context of over-all subregional development and interzonal integration vis-à-vis the Guinean Zone which comprises most of the Southern coastal countries of West Africa. The study will deal with two components of agricultural development:

- (a) General long-term perspective development and,
- (b) Study of selected commodities (mainly food) with prospects for expansion in production and intraregional trade.

Emphasis on food commodities is the collective wish of the Governments concerned, and is consistent with the findings and conclusions of Phase I studies.

A project which was a direct outcome of the subregional studies, but which has been discontinued due to lack of resources for undertaking a pre-investment study, is the West African Regional Food Reserves Study undertaken in co-operation with USAID, FAO and the OAU. The project aims at reducing the effects of seasonal and localized food shortages (mainly food grains) in the subregion. We hope that this project will be given high priority in any action-oriented effort being contemplated. We consider any additional support given to these ECA/FAO Joint studies in order to widen their scope and add to their practical usefulness, is relevant to the long-term aspects of the problem under consideration.

ECA has also been instrumental in the creation and promotion of the West African Rice Development Association (WARDA), rice being a major food crop and source of income especially in the effected zone.

Suggested Medium- and Long-term Measures

Assuming that the relief and recovery measures being currently undertaken or conceived will lead to the normalization of the situation and draw attention to the pertinent resolutions by the ECA Executive Committee, we suggest the following measures:

- (a) Measures related to direct medium-term action:
 - (i) Intensified assistance to Governments concerned and to their inter-state body, in planning, programming and project formulation, including re-appraisal, evaluation and re-orientation of ongoing projects and programmes, as well as review of current development policies and strategy;
 - (ii) The concentration of action programmes from the 1973/74 cropping season onwards on areas of relatively high potential with provision of intensive inputs of improved seeds, fertilizers, vaccines etc. The maximization of geographic coverage. Some bilateral agencies may wish to undertake specific projects in specific areas as part of an over-all co-ordinated programme;
 - (iii) The systematic identification of potential projects as revealed by previous or ongoing studies and experiments, which have so far been delayed by shortage of funds or resources;
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- (iv) The promotion of quick-maturing projects and programmes aimed at increasing food production.
- (b) Measures related to the preparations for long-term development:
 - (i) The planning and expedient implementation of a comprehensive agro-ecological and agro-economic survey aimed at the identification of long-term agro-meteorological-agro-social relationships and hence the promotion of more stable land use and land capability systems and ecological adjustments based on the scientific assessment of productive capacity of land and associated resources. The survey should also take into account complementarity with the Wet Savannah zone, offering better production potential, which, in some cases, lies beyond the political boundaries of the affected countries. It should also take into account possibilities of applying modern technologies such as stratification and feed-lot fattening of immature livestock moved from marginal producing areas to coastal consuming countries. This should logically lead to the formulation of projects and programmes for implementation over, say the next 10-15 years, with the objective of effecting a lasting up-lift in the 'production base';
 - (ii) The formulation of a regional project backed by the most developed technology and scientific knowledge, aimed at improving our knowledge of long-term climatic behaviour and of cyclic droughts;
 - (iii) The formulation and implementation of projects and programmes aimed at the rehabilitation of deteriorating crop and pasture land;
 - (iv) The establishment of the long conceived Institute for Arid Zone Research with the co-operation of the new United Nations Agency for the Environment, UNESCO, FAO and other interested parties. The Institute should give high priority to development and action-oriented research such as that related to 4 (b) (ii) and (iii) above;
 - (v) Given their experience in livestock and area development the consideration of an IBRD/IDA regional project with country level components in the affected zone, aimed at rehabilitation and improvement of cattle routes especially in the north-south axis related to exports into coastal countries. Such projects would include pasture development, ground water development, quarantine and other related measures;

- (vi) The implementation of action and development-oriented research in the affected zone by the projected Animal Production and Health Centre for Africa which is being jointly sponsored by the IBRD/UNDP/FAO and others;
- (vii) The formulation and implementation of a comprehensive and well co-ordinated programme of water resource development, water being the main resource contributing to high and sustained agricultural productivity, rural stability and development. This is because it allows for a substantial increase in the level of technology and the use of improved inputs;
- (viii) Assistance to West African countries of the affected zone to implement the already studied (by ECA) project of the West African Transport Network. The North-South axis is vital to the economies of the land-locked Sudano-Sahelian countries and to the integrated development of the whole West African subregion;
- (ix) The formulation and implementation of projects (mainly inter-country) aimed at the eradication of endemic diseases (e.g. trypanosomiasis and River Blindness) from vast tracts of good potential land which could be opened for settled farming and productive development;
- (x) The preparation of an investment feasibility study and an implementation programme based on the USAID study on Regional Food Reserve for West Africa.

Some Thoughts on the Required Machinery for Planning and Implementation

- (i) We endorse and support the principle of basing all assistance around the already established Inter-State Committee, and that the Governments concerned should take the initiative in all action related to programming, implementation and co-ordination;
- (ii) We agree to the idea of setting up a small co-ordinating office at United Nations Headquarters in New York, with the understanding that this is only a temporary measure, pending the establishment of permanent co-ordination machinery, preferably in the subregion, to work in close harmony with the Governments through their Inter-State Committee;
- (iii) It is in our opinion that this permanent machinery should make maximum use of existing regional and subregional offices of the United Nations agencies already operating in West Africa such as FAO, ECA, WHO, IBRD and the UNDAs. We expect the Secretary-General to assume over-all responsibility for the United Nations programme;

- (iv) We believe that there is need to associate the building up of these institutions and co-ordinating mechanism with a genuine effort on our part as a United Nations family to modify and re-adapt our concepts, philosophy, criteria, methods of approach and sense of priorities, in order to maximize benefits from this challenging task. We should not underestimate, in view of the multiplicity of our agencies interests and senses of priority, the difficulties which will face us in the formulation and implementation of a coherent and effective programme. On the other hand, we are having a wonderful opportunity for concentrated and concerted action in a well defined area with good prospects for maximizing impact and benefits, and hence for boosting and enhancing the image of the United Nations.

Possible Sources of Funds

In addition to any extra-budgetary resources which may be forthcoming, substantial resources can be made available from:

- (a) Allocations from funds earmarked for the least developed among developing countries; four out of the six affected countries are least developed among developing countries;
- (b) Revision of UNDP country and regional programme and priorities;
- (c) Allocations from UNDP reserves;
- (d) Soft-loan funds from IBRD and from the newly established ADB African Development Fund;
- (e) Funds from the United Nations Environment Programme (UNEP);
- (f) Funds from the United Nations Fund for Population Activities (UNFPA).

It should be remembered that the benefits from these investments will affect not only the six countries, but there will be several indirect benefits to the entire Sudano-Sahelian Savannah zone comprising eleven countries with a total population of about 120 million people.

ANNEX II. STATEMENT BY THE DELEGATION OF THE ECONOMIC COMMISSION FOR
AFRICA TO THE FIRST MEETING OF THE PERMANENT INTER-STATE
COMMITTEE FOR DROUGHT CONTROL IN THE SAHEL
AND COMMENTS ON THE PROPOSED PROGRAMME

Ouagadougou, 8 September 1973

Mr. Chairman,
Honourable Ministers, Distinguished
Delegates and Observers,

We are very happy to be among you these days and to make but a modest contribution to your collective search for lasting solutions to the complex problems facing the Sudano-Sahelian Zone. We regard the expedient and effective way with which the Inter-State Committee and FAO, with generous African and international support, have dealt with the emergency phase, a good omen for the future and yet more challenging task of planned development.

It is not our intention, Mr. Chairman, to dwell on a synthesis of the problem or of its nature in retrospect. Enough has been said about that over the last six months, and the Economic Commission for Africa has made its contribution to the analysis and has outlined the magnitude and depth with which a progressive strategy should be sought if a balanced and dynamic process of economic and social development is to be induced. Our analysis and strategy outlined started from the premise that the agro-meteorological factor is only one dimension in the process, that the ecological deterioration of the environment is an effect rather than a cause and that the problem is basically a result of the growing imbalance between the rate of growth of human and animal population and developed land capacity. In other words, a lasting solution of the problem should start with a thorough and profound revision of our rationale, both at the national and international levels, of development concepts, resource allocation and sense of priorities. A more detailed synthesis was given in the ECA statement at the Interagency meeting in Geneva last June. Copies of the statement, together with copies of papers outlining the Commissions ongoing and projected activities in the zone, all of which concentrate on medium- and long-term bearing, have been distributed at the meetings of technical experts and more copies are available on request.

Our delegation has witnessed with admiration the elaborate and good quality work which your diligent and competent experts have produced during the last week. The Technical Commissions provided a good opportunity for these experts to learn a lot from each other and to recognize in real terms how much they have in common and how much more they can achieve through co-operation. The comments which we outline hereunder are meant to strengthen and qualify the work of these commissions who have undoubtedly laid down a solid basis for lasting solutions to the problems under consideration.

It is natural, Mr. Chairman, that at this stage of the work of the Technical Commissions more concrete projects and programmes can be conceived and outlined at the national than the inter-country or regional levels. Additional work and consultations will lead to an optimal balance in this respect. In fact many of the projects proposed at the national level could lend themselves to inter-country or multinational integration.

We would have also hoped to see national development planners working closely with technical experts. Such a deficiency can still be corrected by passing the developed technical knowledge and project proposals to a panel of development planners, who will put them in a development programme context, test their consistency especially in relation to declared objectives, relate them to existing development capacity, determine their inter-sectoral requirements, as well as their local and foreign resource components and, not least, indicate their implications for new development policy and strategy. ECA is prepared to assist in this exercise.

Considering over-all programme perspectives, we note that the Technical Commissions have adopted a phasing scheme for the proposed programmes and projects different from what has hitherto been the understanding. Our understanding of the short-term phase has always been related to the emergency relief phase which may extend through 1974, while medium-term programmes correspond to a period of 5-7 years and long-term programmes beyond that. Most of the experts of the Technical Commissions have included short-term proposals which should more logically and more appropriately come under medium-term, while several proposals for medium-term pertain in fact to the long-term. We sincerely hope that this observation will be taken into consideration in order to render the project proposals feasible, more realistic and worthy of support.

We also note, not without some concern, that the emphasis on training has not been adequate or proportional in all project proposals. Training is a project component which can be considered on a multinational basis for most of the sectors and subsectors under consideration. Maximum co-operation in this and similar institutions such as research is important for minimizing cost, but also for the introduction of relatively modern and high-yielding technology which is often correlated to large-scale operations.

Some commissions have also proposed the creation of centres for specialized research concerning a wide range of disciplines. This has left the impression that perhaps insufficient consideration has been given to the volume of research material and results which already exist within and outside Africa. What is actually required in many of these fields in adaptation and development orientation of relevant research work. Therefore, the best approach may be to set up a single multinational and multidisciplinary DEVELOPMENT CENTRE which will lay more emphasis on the formulation of development projects based on existing and forthcoming knowledge, such as improved sorghum and millet in the Sudan, and intensive animal feeding in Kenya. Where important gaps in knowledge still

exist, the proposed DEVELOPMENT CENTRE would induce additional research work to fill them. This work should, as far as possible, be allocated to existing national research institutions on the basis of experience and relative demand on additional resources to carry out the new line of research.

Mr. Chairman,
Honourable Ministers, Distinguished
Delegates and Observers,

Once more we congratulate the Technical Experts and the Inter-State Committee for having initiated and laid down the basis of a most challenging and formidable task. We promise to place our modest efforts and resources at your disposal through the would-be co-ordinated single United Nations programme. But it is also fitting to mention that ECA has already started a process of modification and re-orientation of its current and projected studies on food, commodities, livestock development and intraregional trade in agricultural products (which projects are undertaken jointly with FAO and/or the OAU), to take fully into account the search of the Sudano-Sahelian Zone for a dynamic and lasting solution. Plans have already been made for the teams undertaking these in-depth studies to work very closely with national experts and multinational groups such as the Inter-State Committee dealing with drought. All these studies will, hopefully help in identifying the main constraints hampering sustained rural development, and hence the establishment of more balanced and dynamic economic and social development, which is the prime pre-occupation of this distinguished forum.