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Ad-Hoc Expert Group Meeting on Environmental
Health and Disease Impact of Drought and
Desertification within the Context of
the African Crises

Addis Ababa, Ethiopia, 18-22 January 1988

DRAFT REPORT

Date and venue

1. The Ad-Hoc Expert Group Meeting on environmental Health and Disease Impact of Drought and Desertification within the Context of the African Crises met in Addis-Ababa, Ethiopia from 19 to 22 January 1988.

Opening of the Meeting (agenda item 1)

2. The meeting was opened by the Deputy Executive Secretary of the Economic Commission for Africa, Mr. E. Tchouta-Moussa on behalf of the Executive Secretary who was unavoidably absent. In his opening address, Mr. Tchouta-Moussa first welcomed the participants to Addis Ababa, and then recalled the ECA mandate which was to assist member States in promoting social and economic development at the regional, subregional and national levels. He then emphasized that the mandate "demanded an approach to programme development that must be inter-sectoral and multi-disciplinary, tapping from all the sectors and disciplines".

3. Further, he called on the participants to use their experience and expertise during the deliberations to help in developing programme guidelines that will help ECA in developing and implementing its programme of work in an integrated manner. After reviewing Africa's economic crises, he recalled the important plans of action that have been developed during the last decade to serve as guidelines to redress the situation.

4. Citing the Lagos Plan of Action and the Final Act of Lagos, he mentioned Africa's Priority Programme for Economic Recovery 1986-1990 (APPER) which was later endorsed by the United Nations General Assembly as the United Nations Programme of Action for African Economic Recovery and Development (UN-PAAERD).

5. Furthermore, the Deputy Executive Secretary said that drought and desertification had induced large-scale population movements and further compounded the problem of refugees and displaced persons - a population sector with enormous difficulty of access to health care systems and who are scarcely covered by any definite health policy.

6. Recalling the nature of Primary Health Care which depends on inter-sectoral and community-based activities, Mr. Tchouta-Moussa pointed out that the difficulty of organizing highly unstable populations required special operational policies, especially from the health sector to eliminate the present situation in which their health care was marginalized.

7. Finally the Deputy Executive Secretary requested the participants to address themselves at this meeting to the following two issues:

- (a) the lack of, or inadequate provision of measures to cater for the diseases and health implications of environmental degradation in the Plans of Action and strategies for development programme planning and implementation in Africa;
- (b) the inadequate investment of resources for monitoring and evaluating the disease and health implications of the crisis, particularly among nomadic and other displaced populations in the arid and semi-arid areas of the region.

8. The goal of this meeting, he concluded, was to develop guidelines on programme orientations that will enhance ECA's programme activities in the area of health considerations in the development programme activities as well as inter-agency and inter-organizational collaboration for the balanced social and economic development of member States.

Attendance

9. The following countries and organizations were represented at the meeting:

- Cameroon, Kenya, Mozambique, Nigeria; Senegal and Ethiopia;
- United Nations Educational, Scientific and Cultural Organisation, World Health Organization/Africa Regional Office, and United Nations Children's Fund.

Election of Officers (Agenda Item 2)

10. Because of the nature of the meeting, it was decided that Prof. Daniel N. Lantum of Cameroon - who was the consultant that developed the main working document of this meeting - was elected as Chairman of the meeting. The ECA secretariat acted as the Rapporteur of the meeting.

Adoption of Provisional Agenda and Programme of Work (Agenda Item 3)

11. After a brief discussion, the Draft Provisional Agenda as presented in document E/ECA/ENV/INFO/1 was adopted. The programme of Work (document E/ECA/ENV/INFO/INFO/3) was amended as follows:

Tuesday 19 January 1988	15:00 - 17:00	Opening of the meeting and presentation of the working document
Wednesday 20 January 1988		It was a national holiday in Ethiopia; therefore the morning was free but the meeting was held in the afternoon from 15:30 to 17:00.
Thursday 21 January 1988	09:00 - 13:00	Discussion
	15:00 - 18:00	Discussion
Friday 22 January 1988	09:00 - 13:00	Discussion
	14:00 - 16:00	Free
	16:30 - 18:30	Adoption of the draft report.

Review of the Consultant's Report (Agenda Item 4)

12. Under this agenda item, the Consultant presented an overview of the main working document.

13. The consultant observed that the subject of his consultation was rather a complex one because it had many facets which required several disciplines to comprehend it. The goal of the study was to help ECA to solve the administrative problem of developing far-reaching inter-agency collaboration, particularly with the World Health Organization (WHO), to combat the disease and health aspects of drought and desertification within the context of the Plans of Action and strategies for Recovery from the African Crisis. With this introduction, the consultant presented the report as follows.

14. Chapter one 'attempts to expose the problem of intersectoral and inter-disciplinary collaboration in general when major human problems like drought and desertification, and other human disasters of large scale present themselves. It then states the purpose of the investigation, shows the importance of the study in its rationale, and then states the global and specific objectives in operational terms. In this respect, it is pointed out that six selected countries (Ethiopia, Kenya, Zimbabwe, Cameroon, Senegal and Mali) will be studied to highlight the particular problems seen and efforts made by some countries in the region within the context of the African crisis'. Chapter one then defines the operational terms and concepts of the subject matter. These include: desertification, drought, environmental development programmes, African Priority Programme for Economic Recovery (APPER), United Nations Programme of Action for African Economic Recovery and Development (UN-PAAERD), the African Social and Economic Crises, the Declaration of Alma Ata 1978, and Primary Health Care, a public health problem, principal public health and related projects and finally medical care programmes.

15. Chapter two studies the nature of the drought and desertification problem as experienced in the Sudano-Sahelian region in general, in the Horn of East Africa and in Africa South of the Sudano-Sahelian region (that is Kalahari region). The methods of combating drought and desertification during the last twenty years are presented from a historical perspective. In particular, the efforts of ECA and other United Nations agencies are highlighted.

16. Chapter three of the Consultant's report examines the health and disease implications of drought and desertification under the following sub-headings: Introduction; Health and Medical Problems; Human Emergencies; Specific Diseases Associated with Disaster Situations; Health Complications of Irrigation Projects; Action of the Health Sector; Emergency Relief Operations; Primary Health Care and Other UN agencies and NGOs.

17. After thus presenting the generalities in the first three Chapters, the report now focusses on each of the six selected countries in the following order:

- Chapter four Ethiopia;
- Chapter five Kenya;
- Chapter six Zimbabwe;
- Chapter seven Cameroon;
- Chapter eight Senegal; and
- Chapter nine Mali.

In each of these country profiles, the report studies the following sub-areas: geography, population, socio-economic and health indicators, desertification and drought, population response, measures to combat drought and desertification, health problems, specific diseases, public and community health measures, inter-sectoral collaboration and conclusion. Notes and references are given at the end of each Chapter to guide the reader.

18. Chapter ten of the report reviews the situation in the six selected countries (Chapters 4-9) in light of the generalities of Chapters 1, 2 and 3 under the following sub-headings: Introduction, the Role of WHO, Causes of Drought and Desertification, Combating Drought and African Economic crisis; health implications; Action by the Health Sector; Other Factors or Obstacles aggravating African Economic Crisis and General Conclusions.

19. From this rich and very informative study, the Consultant made 10 recommendations which constituted advice on how the UNECA and WEO could collaborate in assisting and catalysing the development effort of member States in the context of the Plans of Action and Strategies for African Recovery. These recommendations are the substance of the Executive Summary given in preliminary pages of the consultant's reports.

20. After reviewing the consultant's report, the Chairman called for reactions from the participants. He further emphasized that the participants, in their reactions should keep in mind the objectives of the meeting and important orientations given by the Deputy Executive Secretary in his opening address.

21. It was felt by many that since the report was rather comprehensive, more time should be given to the participants to study it carefully in order to fully participate in its discussion.

22. The participant from Senegal advised that the substance of Chaperts 4-9 could be harmonized with profit under the following headings:

- relationship between health and production;
- relationship between health and climatic conditions;
- relationship between health and socio-economic conditions.

23. The ECA secretariat emphasized that the reading and debate must focus on developing recommendations for the programme of activities which were agreed as items 5 and 6 of the agenda.

24. A representative of the secretariat observed that in the ECA Programme of Work there was no section on health. He therefore saw the need for a health component at ECA. The UNESCO representative observed that health action was already so well integrated in many development actions of other agencies that it was taken as an integral part of development strategies. Citing the case of Man and Biosphere, he said some briefs will be presented during the discussion to substantiate this inter-relationship of health and other sectors.

24'. The WHO representative observed that in recent times WHO has been committed to developing a health package on Disaster Preparedness and Relief Operations which was obviously related to the drought problem. Further, that WHO has also worked out strategies for integrated development at district level within the Primary Health Care context, and that in this framework health was strongly emphasized as an instrument for development. In

the area of inter-sectoral collaboration, he said that ECA and WHO had already held two Joint Technical meetings quite recently.

Discussion

25. The Chairman called on the participants to keep in mind the two major objectives of this meeting as stated in the opening address of the Deputy Executive Secretary.

26. The first three chapters of the Consultant's report were then presented chapter by chapter and discussed. The following interventions were made.

27. It was suggested that certain data on the nature of drought and desertification should be added in paragraph one of Chapter I, namely that: "In 1973, the Sahelian region of Africa, that is, the Southern margin of the Sahara, saw five years of uninterrupted drought. Lake Chad shrunk to one third of its normal size, the Niger and Senegal rivers had no floods, hence much of the agricultural land normally watered by the floods was left barren. Shallow and seasonal wells dried up. Vegetation disappeared as hungry animals stripped off the land of its plant life leaving open patches of dry land with desert conditions. These patches seemed to grow and link up with the great Sahara Desert to the North, thus describing the southward migrating desert phenomenon. People fled away from these barren lands in large numbers".

28. The representative of UNESCO presented his organization's experience in environmental health and disease impacts on drought and desertification in Africa. He stated that through UNESCO's participation for the last 25 years in arid zone research, the organization had accumulated a lot of experience on the problems and prospects of the rehabilitation of arid lands in Africa and other parts of the world. The 25-year research programme which was based at the University of Arizona had produced a wealth of publications which were presently in many libraries for reference. Specific reference in this research had been made on the health status of people living in the arid zone.

29. He continued that the UNESCO Man and the Biosphere (MAB) programme which was established in 1971, was a multidisciplinary effort of applied research to solve pragmatic environmental problems affecting specific human populations. An important emphasis on the Man and Biosphere programme was the specific concentration of this research on the human ecology, to examine at the environmental problems affecting man.

Under the UNESCO Man and the Biosphere programme there was a specific study area which concentrated on the problems of arid lands.

30. Within this programme area there had been several pilot activities established all over the world to investigate the problems associated with desert encroachment and to find immediate solutions to these problems. In Africa UNESCO had been implementing the Integrated Project in Arid Lands (IPAL) in Northern Kenya for the last 11 years. This programme had yielded a wealth of research information of great significance when seen in the light of a developing part of Africa. All the research information was synthesised into research management guidelines which have made recommendations on the rehabilitation of the environment. A significant part of these recommendations was the human health factor. He said that recommendations had been made on how to reach pastoral populations with health facilities and how to implement simple health programmes that could be managed by the people themselves. UNESCO, he said, would be very happy to share its experience in this area with other agencies working in this region.

31. The representative of UNESCO continued that through the design of integrated research activities in the arid zone UNESCO has the necessary experience and machinery to implement environmental monitoring programmes. As the ECA meeting will be looking at this specific factor, he hoped to offer his organization's experience in this area and would be pleased to associate with any agency that will be undertaking a similar task.

32. He regretted that, because of the shortage of time and other commitments, it was not possible to send the experts who undertook these programmes to this meeting but they look forward to the collaboration of other agencies in the interest and commitment of bringing about a solution to the African crisis.

33. The WHO representative thought that a fresh perspective should be adopted in combating the impact of drought. One important effect was famine, and when it does come, the national and international community come out to pledge food as part of relief support. If the entire problem of drought was approached from the long-term development perspective, droughts which are usually unpredictable could come, but famine should not occur.

34. The Chairman thanked the WHO representative for this view and mentioned that in drought-prone countries like Malawi and Zimbabwe, provision had already been made on their long-term planning to stock-pile grain to prevent famine during prolonged drought events.
35. The meeting then discussed the term "region" as used in the various contexts in the reports of different agencies. It was pointed out that the various UN agencies had different "regions" in Africa, and that these "regions" or subregions were often determined by internal operational criteria. For instance, ECA had 5 MULPOCs, the WHO had three subregions and UNICEF had its own regions which did not coincide with those of ECA or WHO.
36. The delegate from Nigeria summarized this discussion on regions by saying that "region" was a functional term and not a permanent geographic entity. Further that once the specific function for which the "region" was identified or carved out was accomplished, it ceased to be of value and new ones could be carved out. Therefore "region" was determined by "use" and hence was conceived differently in different countries and by various disciplines such as in Economics and Geography.
37. It was then suggested that a wider range of indicators than had been indicated in some ECA documents be developed for monitoring the impact of drought and desertification as well as the African recovery from the socio-economic crisis.
38. The Nigerian delegate called for clarification of the use of "urbanization" as an indicator for development. Some participants observed that 20,000 population was commonly used in the UN-system. In some member States, administrative headquarters of provinces and divisions were often designated as "urban" for their potential intent rather than for their current demographic standing. Nevertheless, in spite of these differences, statements of comparison of urbanization status in the longitudinal study dimension by any consistent criteria, denoted change in development.
39. Reviewing the classification of diseases as presented in page 39 of the Consultant's report, one participant thought that category (f) which already appeared on page 38 could also be added. This referred to a wide range of problems due to, or consequent on social disorganization and social disorders in disaster situations.
40. The WHO representative reported that the report of the second Joint ECA/WHO (AFRO) Technical meeting held in Addis Ababa from 7-8 December 1987 was now ready and that it carried relevant recommendations on areas of inter-sectoral collaboration

for the future. The WHO representative further stated that the WHO had already recently developed great

interest in the global problem of disaster including those consequent on drought and that a regional and subregional offices were now being set up in Addis Ababa and Harare, respectively, for Disaster Preparedness and Emergency Management.

41. He observed that such new developments offered greater opportunities for ECA co-operation with WHO. Further, it was announced that WHO/UNICEF are jointly organizing a meeting in Mozambique in 1988 to discuss Emergency and Disaster Management.

42. The UNICEF representative saw the area of immunization as an essential component of disaster management operation and considered that WHO, UNICEF and ECA found a basis for inter-sectoral collaboration in this aspect of combating the impact of drought. Further, as UNICEF has for long co-ordinated the appeal for assistance in health and water for drought-stricken countries, this offered another opportunity for intersectoral collaboration with ECA and WHO.

43. The WHO representative observed that in emergency relief operations to combat disasters, donors often donated drugs, food and clothing but that scarcely was any consideration given to money and material for latrine construction and proper refuse disposal, the absence of which was the principal cause of disease epidemics like cholera, dysentery, gastro-enteritis, etc. Thus, in general the environmental health component of disaster management was never clearly understood and addressed.

44. The Chairman considered that this intervention could be formulated into a practical recommendation. He, however, observed that by the very nature of disasters, they were sudden and of a scale that often surpassed the ^{immediate} resources of national authorities. Because of their sudden nature, disasters are scarcely planned for, or if planned, hardly adequately, since the dimensions are unpredictable. Yet, it was important that latrine construction and proper management of refuse should be included in disaster preparedness.

45. In conclusion, the Chairman thanked the participants for their active participation at the meeting and especially for their very enriching interventions. He called on them to try to formulate these ideas into practical recommendations to facilitate the attainment of the objectives of items 5 and 6 of the agenda.

46. For home-work, the participants were requested to read up the six country profiles and the synthesis which made up Chapters 4-11 of the Consultant's report. The delegates from Kenya and Senegal were requested to prepare to present their country profiles.

47. The Chairman continued with the presentation of the profile of Ethiopia in light of the objectives of the meeting. He stated that Ethiopia was a drought-prone country and as such has known drought for centuries, but that the situation being reviewed was the impact of recent and very intense droughts of 1972/73, 1984-1987. He highlighted the general depressing effects of drought on the national economy but noted that the recent socio-political mobilization of the population was a measure in favour of coping with development issues in general and with drought problems in particular. Of special mention was the pressure of environmental refugees which was such that the authorities saw the displacement and resettlement of about 1.5 million people from the hard-hit highland regions to the fertile lands of the west and south, as a permanent development measure. He also observed that the most recent drought of 1984-1985 had dwelled on too long and that Ethiopia was even at present facing a disaster due to drought.

48. Reacting to the presentation, the WHO representative suggested some updating of the consultant's report to emphasize that the Relief and Rehabilitation Commission was the national co-ordinating agency and that it worked closely together with the UN Emergency Office which was created in 1985 as the co-ordinating authority or umbrella for all UN Agency action. Thus the Commission was an example of multisectoral collaboration charged with fund-raising and organization of relief operations.

49. It was also added that the Relief and Rehabilitation Commission had developed an early warning system department which had in fact successfully forecasted the last two famines of 1984/85 and 1986/87.

50. To streamline the debate, a question was asked on how the ECA system works. The response was sketched out as follows. ECA assists member States in many ways, through research, advisory services, training, publications and provision of environmental statistics. Further that, ECA had a division charged with the study of Agricultural production and Natural resources. A division charged with Social implications of development and health perspectives has recently been created.

51. The Nigerian delegate raised the question on whether physical and social planning were adequately taken care of in the proposed resettlement of 1.5 million people from the highlands. Experience from elsewhere had shown that inadequate planning would result in creation of slums, he added.

52. The response was that, some good studies had been undertaken to ensure the balanced welfare of the population to be resettled. That consideration had been made about health care, economy, water supply, land-use for agricultural

development, etc. Further that whereas ab initio, this measure was rushed due to disaster pressure, recent action was deliberately planned. The successful Italian-supported pilot Powee Project in the North had provided good experience on how to develop and manage massive resettlement schemes elsewhere. The speaker noted that in resettlement there were two approaches. The first one involved immigrants infiltrating into existing communities and using available resources and existing services while the second method involved the creation of new settlements.

53. A question was asked whether or not there was a health division or unit in the Relief and Rehabilitation Commission. The response was that there was a medical unit mostly involved with medical care and it worked in close collaboration with the Ministry of Health.

54. The Nigerian delegate asked if any ethnic or cultural conflicts had been observed in new settlements. This matter had not yet been studied.

55. A question was raised about the financial resources and cost of resettlement schemes. The WHO representative gave the figure of 200 million dollars deployed by Italians on the Powee Project and stated that the resettlement of 1.5 million people was a costly scheme but that it was phased over some years.

56. The Chairman remarked that new resettlement ventures in Africa today ought to benefit from the experiences of past efforts and mentioned that there was abundant documentation on the creation of new homes consequent on displacement of persons by the Akosombo Dam in Ghana, the Kanji Dam in Nigeria and Laedo in Cameroon. Further that Nigeria has recently been transferring their Federal Capital from Lagos to Abudja. All such major schemes must be preceded by studies and planning.

Kenya

57. The Kenyan delegate then presented the Kenya profile. He observed that drought and desertification were serious problems and that government was doing a great deal to keep them in check and to minimize their deleterious health effects. He reported that there was no massive resettlement programmes but that there was a scheme to settle down nomads. The strategy was by providing incentives such as water supply, health centres, schools for their children, farming land, etc. The effort so far was successful and effective.

58. It was reported that Kenya being a member of the 6 country regional organization-IGADD (Kenya, Uganda, Sudan, Somalia, Djibouti and Ethiopia) - which headquarters in Djibouti was benefitting from the results of the research work of this Authority. They were now stockpiling food to avoid periodic famine irrespective of droughts; grain stores were constructed all over the country even in arid lands, thanks to the assistance of Japan. In Kenya, there was also a Presidential Commission charged with afforestation and soil conservation. The community education programmes was an integral part of this development action. Fruit tree planting was also encouraged. NGOs were assisting. Recent evaluation showed good success at the grassroots. Government raised tree nurseries and distributed seedlings without charge to village populations.

59. In the health sector, the district-focus approach was already promoted and decentralization was the policy satellite health centres were being built in peripheral zones and people-participation was assured by the "Harambe" self-help scheme.

60. The population estimate for Kenya in 1988 was about 20,000,000 inhabitants.

61. The WHO representative lauded the Kenya approach to the resettlement of nomads, advised greater exploitation of the research results of the Djibouti-based regional Authority and considered that the district-focus was more effective in development than the regional MULPOC approach.

62. A representative of the ECA secretariat observed that each UN agency has its mandate which guides its operations. The Chairman developed this point and emphasized that the mandates were not mutually exclusive and that they cut across one another. Hence, the UN agencies were bound to collaborate. For instance, in the health sector WHO, UNICEF and FAO had to work together on the problem of food and nutrition. Similarly, ECA and WHO had to intersectorally co-operate in socio-economic development which spanned both mandates.

63. The Kenya delegate reported the 1980 famine experience which followed the bumper harvest of 1979 because food had barely been sold out when drought struck hard.

64. The Chairman reported that in Kenya, measures had been taken to give credits to cattle owners to slaughter their cattle in early in drought events to avoid wastage. The meat was stored in huge refrigerators for distribution in difficult times. Further, that Kenya has discontinued receiving food from the World Food Programme as it was seen as a deterrent to national food production effort. Self-reliant development was the approach towards self food-sufficiency which was almost being reached by 1987.

Zimbabwe

65. The Chairman presented the profile for Zimbabwe. He reported that the socio-political reorganization of the population at all levels was so effective that they were able to successfully fight drought and its health consequences. The long-term national integrated development plans outlined long-term strategies. Afforestation was widely practised. A strong agronomic research sector was based in the University faculties. In spite of drought, Zimbabwe remained the Bread-basket of the Southern region of Africa, Thanks to its food-stockpiling strategies. Extensive inter-sectoral collaboration was the norm, and recently a centre for disaster preparedness and relief operations was set up in the WHO subregional Office. The World Food Programme strategy of food-for-work was explained.

66. The meeting listened with delight and endorsed that there was a lot to learn from the Zimbabwe experience.

Cameroon

67. The Chairman reported the drought situation in the Far-north and North provinces of Cameroon. He observed that about 2 million people live in the drought-prone area out of a total national population of 9.2 million (1986 estimates). Since drought was a well-known occurrence in the area, the management of it had always been provided for in the national integrated five-year social, economic and cultural development plans since 1960. The organization of the agro-pastoral show - an event with extensive development impact - in Maroua in January 1988 was a peculiar Cameroonian development strategy to combat drought and desertification. Afforestation was widely practised and several irrigation dams had been constructed in the drought-prone territory. On the whole Cameroon was doing quite well to combat drought and its effects in all its forms. Recent austerity measures to fight the economic crisis were also explained.

68. The Nigerian delegate asked about the health precautions of huge irrigation projects and artificial lakes. The Chairman cited the well planned settlements around Laedo dam and Semry Naga and mentioned that apart from hospital installations within these new collectivities, there were adequate epidemiologic services to cater for endemic diseases arising due to the creation of new ecosystems. Primary Health Care was an integral part of health planning in these schemes.

69. Asked whether the recent harmonization of salaries between the parastatal and civil service sectors would not deter production, the Chairman explained that government was sufficiently careful and flexible in restructuring of salaries and sought to cut down on serious disbalances and squandermania due to excessive fringe

benefits and inherited incentive practices which no longer found justification in independent Cameroon and particularly during economic recession of great importance.

70. The question of health indicators was raised and widely discussed. It was agreed that aggregate national health indicators were thoroughly misleading of the true health care delivery situations in the countries given the well-known disproportionate distribution of infrastructure between urban and rural areas in most countries.

71. The need for health statistics in general was expressed but that statistics should be disaggregated to reflect the true picture. Spatial dimension should be expressed in the indicators and indices.

72. The question of providing for the training of health statisticians in ECA training centres was raised and supported. It was however observed that health statisticians were often misused by being dumped in the Central statistical services of government rather than being attached to operational sectors of the Ministries where they could help conceive indicators and monitor and evaluate health programmes.

73. Environmental health specialists were also proposed for training and use to manage environmental health.

74. The Chairman observed that the role of the Sanitary Inspector was understood differently in the English-speaking and Francophone member States. Further that whereas city environmental services units were in the Ministries of health in some countries, in others these were controlled by the Mayor's city service.

75. Inter-sectoral collaboration between WHO and ECA in monitoring of diseases associated with dams and irrigation projects was suggested in light of the objectives of this meeting.

76. The Chairman observed that FAO was also concerned with health implications of dams and irrigation projects was suggested in light of the objectives of this meeting.

77. The Chairman observed that FAO was also concerned with health implications of dams and even drought because these had to do with food production. He mentioned that the world map of drought developed for 1977 UN Conference on Drought and Desertification was provided by FAO and that FAO and the Government of Togo recently organized a high-powered Conference in Lome to study irrigation project management including the health component.

78. A representative of the ECA secretariat asked whether sanitary engineers should operate from the Ministry of Health, Ministry of Planning and Statistics or from the Ministry of the Environment, where, at the national level, is the focus of environmental management. After discussion, the Chairman concluded that as environmental problems are often tackled by different ministries and different emphasis, they must be seen as an area for inter-sectoral collaboration. As such there could be no simple formula to hand to member States which were all existing in widely differentiated ecologic zones. For instance, it was pointed out that drought did not operate with the same intensity and frequency even in the six countries visited for the purpose of the present meeting.

79. The Nigerian delegate reported that in his big country with 21 states, there was wide variation among them and even within each one of them. As such, they had found it useful to use the local government areas as units of effective operation and monitoring given development projects including health care. At that level, within the Primary Health Care context, statistics could be collected on water resources, access to water and other sanitary facilities. Now PHC covers only 80 of the 300 local government areas.

80. The WHO representative called for research on the development of health indicators. It was considered ECA and WHO could collaborate in such a project.

Senegal

81. The three major climatic regions of Senegal were described the Senegalese delegate and the systems of land ownership in a partially socialist and capitalist system. Primary Health Care philosophy was now widely accepted and that the 3 pilot centres in rural areas could be monitored by WHO and ECA.

82. He mentioned the Abidjan Convention to carry out research on marine ecology. WHO was participating in this study. He also explained the role of salinity in promoting drought and desertification.

Mali

83. The Chairman presented the Mali profile. Mali was shown to be one of the countries most afflicted countries by recent drought although drought is not a new phenomenon in Mali. Environmental refugees was a problem in the mid-lands but no resettlement schemes were envisaged. Afforestation was widely practised. Government had however developed long-term strategies including extensive inter-sectoral collaboration to fight drought and desertification and their effects. The Sahel Institute which was part of CILSS was cited as a very effective centre for research

on development problems in the six countries of the region, including the problem of drought. It is thanks to its collaboration with the University of Bamako that some useful epidemiological surveys have been conducted in the semi-arid and arid zones lying in the Sahel.

84. Asked about afforestation, it was reported that this was an old practice since Mali seeks to maintain and improve its rainfall.

85. Asked about health services, it was replied that WHO, UNICEF and the Ministry were collaborating in nutrition studies as well as in the Expanded Programme in Immunization. Family Planning was now well promoted to improve the health of mothers and children as well as a demographic measure. With the support of UNDP, the Ministry of Health was promoting traditional medicine both as a self-reliant health measure as well as an economic measure to cut down on the foreign exchange spent yearly on importation of pharmaceutical products.

86. Chapter Ten which is the synthesis of the country profiles was then presented by the Chairman.

Proposals for Follow-up Activities (Agenda item 5)

Any Other Matters (Agenda item 6)

87. The meeting now reviewed the work accomplished thus far and began to compile suggestions from specific recommendations could be developed.

88. Having considered the report of the consultant, the Ad-Hoc Expert Group Meeting on Environmental Health and Disease Impacts of Drought and Desertification within the Context of the African Crisis, the meeting noted:

- (i) the need for ECA to develop programmes that will incorporate health and disease considerations into the activities of the Commission;
- (ii) the need for closer collaboration between ECA, WHO and other concerned organizations both within and outside the United Nations system in the development, implementation, monitoring and evaluation of programme activities in the area of the health and disease implications of drought and desertification in affected member States.

89. The meeting also noted with appreciation the recent efforts being undertaken by ECA and WHO to answer^{to} the concern for closer collaboration through two Joint Technical Group Meetings on Health as a Foundation of Socio-economic Development in Africa. The meeting therefore, makes the following recommendations:

A. Institutional arrangements

- (i) that ECA and WHO should study the feasibility of joint programming of activities to ensure the health considerations and the inter-sectoral approach to social and economic development planning, programme implementation, monitoring and evaluation;
- (ii) that ECA and WHO should also study the possibilities of joint programming subregional activities with the context of the ECA MULPOCs and the three subregions of WHO/AFRO;
- (iii) that ECA and WHO should study the possibility of direct WHO support to the activities of the Environment Section of ECA to strengthen the health aspects of the Section within the context of subregional and regional activities.

B. Activities

90. The area of the relationship between health, drought and desertification has not yet been fully studied. Data collection is therefore still needed. Three areas can be identified:

- (i) advisory services to member States;
- (ii) studies for reports, etc.

Within this context, therefore, the following recommendations were made:

(i) Establishment of Environmental Data Banks

Countries should be encouraged through provision of guidelines and technical assistance to establish environmental data banks. This will consist of information about the nature, process, extent and consequences of drought and desertification within the nations. Having established this information base, it will be upgraded periodically to assess changes that take place in view of local, regional and international agency interventions. There is a need for each country to have an environmental data bank to assist in improving our knowledge and understanding of the magnitude, dynamics and impacts of drought and desertification. A reliable 'bank' will improve decision-making and planning process as well as implementation process. It will indicate possible future trends and therefore enable us make adequate preparations.

(ii) Adoption of Integrated Land-Use Planning

Most of the problems of drought and desertification are closely associated with the way and manner land is being put into use (agricultural practices, deforestation, bush burning, etc.). At the same time, measures such as resettlement schemes that are resorted to when faced with problems of population movements have physical planning implications (choice of sites, type of structures, essential facilities, etc.). The need therefore arises that countries should make physical land-use planning an integral part of their programmes in minimizing the effects of drought and desertification on their peoples.

(iii) Need for public Participation

There is need to intensify the involvement of the public (communities, philanthropists, NGOs, etc.) in controlling the health and other socio-economic effects of drought and desertification. Every country should have a well-thought out programme in this regard. This has a lot of advantages: one, it will help in maintaining an effective communication link between the policy-decision makers and the citizenry; two, programmes in which people actively participate are bound to be acceptable as well as ensure self-sustainability; and three, it will reduce cost of intervention by the public agencies - this should be of especial interest now that most economies are on the downward trend.

(iv) Essentials of collaboration and co-operation

Since the nature of the problem of drought and desertification cuts across several disciplines and since its effect knows no national boundaries, the need for collaboration and co-operation speaks for itself. In specific terms, these should be considered at three levels:

- (a) Inter-agency collaboration (co-operation): This involves all the international agencies that have to do with environmental and health issues. There should be organized forums where these issues will be discussed so that one agency knows what others are doing at any point in time and actually initiating joint programmes. This will prevent duplication of efforts;

- (b) Inter-regional Collaboration/cooperation: Contiguous groups of countries, or put in another way, countries within the same ecological zone should be meeting from time to time over environmental and health issues as they affect their countries. They should share experiences, assess common events and evolve joint programmes;
- (c) Inter-sectoral Collaboration and Co-operation: The type of joint efforts advocated at the regional level (i.e. among the countries) should permeate to the local level. This emphasizes the need for all ministries concerned with health and environment to have an inter-ministerial consultative body. It will be responsible for advising on, and initiating local programmes on local health and environmental issues.

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