ORGANIZATION OF AFRICAN UNITY
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ORGANISATION DE L'UNITE AFRICAINE
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COUNCIL OF MINISTERS
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CM/797 (XXVIII)

REPORT OF THE SECRETARY GENERAL ON THE FOURTH SESSION OF THE OAU AD HOC COMMITTEE ON DROUGHT AND OTHER NATURAL DISASTERS IN AFRICA

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1. In addition to the drought whose residual effect, severe intensity, duration and area coverage have been building over years in Africa; other natural disasters have been bringing catastrophic effects in most of the areas of Africa; disasters like floods in Burundi and the western parts of Ethiopia, desertification in Senegal, Sudan and Madagascar, cyclones in Mauritius and Madagascar and granivorous animals including rats, locusts, grasshoppers, birds and jerboas in Chad, Cameroon, Mali, Niger and Sudan.

2. The effects of drought and other natural disasters included drying up of surface and some of the sub-surface water, loss of large number of animal stocks including wild-life, crop failure, departure of the populations to cities or other countries, destruction of houses, shelters and stock reserves, serious decline in exports, increase in imports and the consequent deterioration in the balance of payment as well as a decline in the purchasing power of the populations.

3. The countries that were affected by drought and other natural disasters have undergone some change, but still the measures undertaken to combat these disasters are inadequate.

4. Since April 1974, the OAU General Secretariat has been, periodically, submitting problems connected with these natural disasters to the policy-making bodies of its Organization.

5. A certain number of resolutions had been adopted, more particularly, CM/Res. 336 (XXIII), CM/Res.406 (XXIV), CM/Res.450 (XXV) and CM/Res. 465 (XXVI).

a) The OAU ad hoc Committee on drought and other natural disasters (composed of: Algeria, Ethiopia, Kenya, Morocco, Rwanda, Senegal, Somalia, Sudan, Upper Volta and Zaire) had been set and had already met four times (The Rapporteur's report on the Fourth Session of the OAU ad hoc Committee is annexed).

b) An emergency relief fund was created and a special account for it (A/C 616) had been opened with the Commercial Bank of Ethiopia in Addis Ababa. This fund is raised by obligatory contributions from Member States and by voluntary subscriptions from African as well as non-Africans; the fund is to be used to finance immediate action to alleviate the suffering of the afflicted peoples. The contribution of 17 OAU Member States and six individuals to the emergency relief fund amounted to US$249,302.94 (minus US$20,000.00 sent to the Government of Cape Verde Islands in January 1976, to be used for its urgent drought assistance needs. This was undertaken by the OAU ad hoc Committee in compliance with Resolution CM/Res.450 (XXV).

c) Setting up a section, within the OAU General Secretariat, to deal with drought and other natural disasters in Africa. An officer has already been appointed for this section and he is supposed to start working before January 1977.

d) The celebrations of the OAU Thirteenth Anniversary to be centred on assistance to the drought stricken countries.

e) Holding a symposium on drought and desertification in Africa. The General Secretariat has already informed all Member States as well as the relevant International Organizations about this symposium which is to be held on 11-15 April 1977, at the OAU Headquarters.

f) The drawing of the hydrogeological map of the Continent. The General Secretariat is arranging for an experts meeting before the end of 1977 for the drawing up of this map.

6. The OAU ad hoc Committee on drought and other natural disasters, at its fourth session, made the following recommendations:

i) Each Member State should honour its commitment by paying its obligatory contribution to the emergency relief fund which consists of 1/16th of its contribution to the OAU Ordinary budget, starting from January 1976 and up to January 1980. Member States who contributed prior to the establishment of the emergency relief fund should indicate to the General Secretariat whether they would like their contribution to be considered as obligatory contribution or voluntary subscription.

ii) There is no urgency at the moment to distribute what is available in the emergency relief fund to the afflicted countries. The Committee will meet each time there is an emergency case which deserves immediate assistance.

iii) The Committee recommended that OAU Member States should periodically inform the General Secretariat on the state of drought and other natural disasters and of their needs and requirements for the combatting those natural disasters. This will allow the General Secretariat to collect and up-date its information on drought and other natural disasters, and will also help the OAU ad hoc Committee to assess the magnitude of aid required by each affected Member State.

iv) The Committee considered the following solutions that can be put into practice simultaneously:

a) Affected Member States may directly request the desired assistance from the UN bodies and its specialized agencies.

b) OAU General Secretariat, throughtits regional offices, in Geneva and New York, may contact the UN bodies and its specialized agencies as well as the other international communities for more assistance for mitigating drought and other natural disasters.

c) Combined efforts by both OAU General Secretariat and the UN bodies and its specialized agencies for securing more assistance in favour of the afflicted Member States.

v) There is great need to sensitize the world opinion, through mass media, on the situation of drought and other disasters in Africa.

vi) Irrespective of the assistance that can be afforded by the international communities, Member Ststes should rely on their own resources for combatting all natural disasters.

AD HOC COMMITTEE ON DROUGHT AND OTHER NATURAL DISASTERS IN AFRICA
FOURTH SESSION
ADDIS ABABA, 29 - 30 NOVEMBER 1976
RAPPORTEUR'S REPORT

The ad hoc Committee on Drought and other Natural Disasters in Africa held its fourth session in Addis Ababa on 29th and 30th November 1976 at the Conference Hall of the OAU's General Secretariat.

1. Those who attended were the representatives of member countries of this Committee, that is, Ethiopia, Algeria, Kenya, Morocco, Senegal, Sudan, Somalia, Rwanda and Zaire. Upper Volta was absent.

2. The following International Organizations also were represented: UNDRO, UNDP, WFP, WHO, CILSS, ADB, UNEP, WMO, FAO, OAU.

3. The Chairman for this session was Mr. Chanyalew Alemayehu Chairman of the Ethiopian Relief and Rehabilitation Commission, Citoyen Mabussi Luyangu (Zaire) was the Rapporteur.

4. The Agenda had the following subjects :

(1) Opening of the session
(2) Adoption of the Agenda
(3) Organization of work
(4) Review of the contribution of Member States to the Emergency Relief Fund - AHC/DND/2(IV)

5. Criteria for the allocation of the Emergency Relief Fund to Member States affected by drought and other natural disasters AHC/DND/3 (IV)

a) Review of the situation of drought and other natural disasters in Africa - AHC/DND/4 (IV)

b) The action recommended by the ad hoc Committee for combating drought and other natural disasters in each of the affected Member States.

6. Adoption of the Rapporteur's Report and decisions of the Committee

The meeting was opened at 11.20 a.m. by the Director of the Scientific and Cultural Department of the OAU General Secretariat who in his speech emphasised the importance and the role of this session. He called upon the Committee to dwell seriously on the problems of drought and other natural disasters which have affected various areas in Africa. Floods in Burundi and in the West of Ethiopia, desert encroachment in Sudan and Senegal, cyclones in Mauritius and Madagascar, rats and locusts invasion in the Sahel region and continuous drought for 9 years in Cape Verde.

Drought and other natural disasters are a threat to all African countries and show the urgent need for them to give it the importance it deserves in the food and agricultural sectors, and it is necessary to increase investments in these sectors so as to raise food production to the level of creating reserves of food crops. Member States are concerned with long term steps which are vital for the servival of their populations. It is in this perspective that the Scientific Department plans to hold a symposium on Drought and Desertification in Africa from 11th to 15th April 1977 in Addis Ababa and an experts panel to meet in July 1977 for the drawing of the hydro-geological map of Africa.

To this end member states are called upon to nominate their experts and to send to the OAU General Secretariat the pertinent documents and necessary information to ensure the success of these two meetings.

Member States are also called upon to honour their commitments and an appeal is made to the international community, intergovernmental and private organizations, the United Nations bodies and its specialized agencies so that they could increase their aid to the African countries which have been affected by drought and other natural disasters.

Taking the floor, Mr. Chanyalew Alemayehu, the Chairman of the ad hoc Committee thanked the General Secretariat's representative for his statement and the members of the Committee as well as the representatives of the international organizations for their attendance.

He then referred to resolution CM/Res.465 (XXVI) of the Council of Ministers which gave the Committee the task of reviewing the following three questions :

- Reviewing the problems of drought and other natural disasters in Africa (Paragraph 4)
- Seeking support from the UN bodies and its specialized agencies as well as from other international communities for mitigating drought (Paragraph 6)
- Determining criteria for the allocation of Emergency Relief Funds to Member States affected by drought and other natural disasters (Paragraph 7).

He emphasized that the causes of these disasters are the same everywhere and that steps taken for alleviating these sufferings are logically the same, that is, the production and distribution of food stuff, road improvement, medical aid, reafforestation, protection of plants, water development for irrigation, range management, family planning, early warning system, resources development and dam construction for defensive work or irrigation. He observed that, in the case of Ethiopia, a general impact on the problems of drought and other natural disasters should be brought under effective control within ten years, otherwise the alternative is a grim disaster of great magnitude.

He also pointed out that the social and humanitarian aspects for development projects must be included as well - particularly directed towards disaster prevention.

7. Item 4 of the agenda

The representative of the General Secretariat introduced this item and stated that the Emergency Relief Fund was established by the Council of Ministers in 1974 by Resolution CM/336 (XXIII) and is raised up by obligatory contributions from Member States and voluntary subscription from Africans and non-Africans. Based on Resolution CM/Res.465, the contribution scale was fixed at 1/15 of Member States contributions to OAU regular budget. This is to be used for funding emergency action in favour of States affected by drought and other natural disasters.

With regard to whether all states are in order with their contributions and whether the organizations and specialized agencies of the United Nations System responded to the appeal of the OAU General Secretariat, the Secretariat representative informed the Committee that the Secretariat had contacted all States through note verbales and that notes were also sent to Geneva and New York bureau requesting them to secure the interest of international organizations towards problems arising from drought and other natural disasters.

The Committee noted that Member States had shown delays in paying their contributions owing to the fact that their budgets were voted before 1976 without provisions for these contributions.

Moreover the Committee regretted that the OAU General Secretariat failed to sensitize international public opinion through a promotion campaign conducted by the mass media.

Requested by the Committee to do so, the Secretariat undertook to provide a table giving an accurate statement of the Member States contributions.

The Committee turned then on the question of the date which the contributions became obligatory and whether the request of some Member States should be agreed with, according to which contribution paid by some Member States as voluntary subscription before contributions became obligatory by virtue of the Council of Ministers resolution, should be converted into obligatory contribution.

The Secretariat's representative specified that the Fund was established in Mogadishu in 1974. When the Council decided that contributions should be obligatory, only eight States paid their due, the others failing to do so because they did not know on which basis these contributions were to be set up.

The Committee, at the third session in December 1975, fixed the scale at 1/15 of the States contribution to the OAU regular budget. Following this, Member States which paid contributions on a voluntary basis to comply with the appeal made by the Heads of State and Government of OAU, sent letters to the Secretariat asking it to consider their payment as obligatory contribution.

Following the deliberation, the Committee reached a consensus according to which it should be up to each Member State to decide whether the paid grant should be considered as an obligatory contribution or as a voluntary subscription.

The Committee agreed that Member States should be invited to keep their committments by paying their contributions according to the Council of Ministers resolution.

8. <u>Point 5 Paragraph 7 of Resolution CM/Res.465 (XXVI) Criteria for the Allocation of Emergency Relief Fund to the Member States affected by drought and other natural disasters</u>

The Secretariat proposed a ten point criteria and asked the Committee to determine through these criteria how to agree to and distribute these emergency relief fund. The problem is

how to determine the priorities and how to accede to requests for aid to countries which ask for it. Whom to give and how to give it?

The Committee decided to note the suggestion made by the General Secretariat and put them into categories.

One important question was raised with the aim of finding out if the funds should be devoted to feeding the population or they should be invested so as to develop the resources necessary for combating disasters. In other words, should this fund be utilized for short term solutions or be used to bring about long term ones?

The Committee felt that the fund should be aimed at bringing relief to populations which are in difficulties. It must therefore be used to alleviate the suffering of the afflicted populations. It should therefore not be destined for investment. After all this aid is modest and insufficient even to provide for afflicted populations.

Nevertheless the Committee supported the idea requesting Member States to include in their national plans the investment into programme for rectifying problems brought about by natural disasters. The Committee agreed to retain the idea of criteria in general terms without going into details.

The representative from FAO remarked that these criteria were difficult to define. FAO established general criteria which enables it to intervene each time a country experiences an emergency food situation. In fact each time a country is declared an emergency zone and its government is not in a position to provide the basic needs of the population, FAO comes to its aid.

The decision to intervene is based on general criteria; from where it is then possible to proceed evaluating the needs. To do so some authority must be established for evaluating the needs and decide on the intervention.

The Committee noted that the idea of emergency should be among these criteria. In fact the advent of a disaster or an epidemic calls for an immediate intervention. The Committee admitted that it would be wise not to be rigid on criteria. Anyway there is no urgency to distribute the fund at the moment. The problem of criteria was envisaged to take care of such like eventualities. The Committee admitted that it would apply the FAO's experience when it deals with the question of acceding to granting aid to affected countries.

It was emphasized also that the fund would be made available after studying the case.

The OAU Secretariat recruited an officer to be in charge of the section on drought and other natural disasters. This section will be able to gather information and sufficient data on drought.

9. Item 6 (a)

Review of the situation of drought and other natural disasters in Africa - AHC/DND/4 (IV).

The Committee considered the situation in some Member States affected by drought and other disasters as reviewed in the above document.

The Committee recognized that it was necessary for the OAU General Secretariat to obtain from Member States adequate information about the extent of the disaster, the action taken by the concerned States and the assistance secured.

This information is to be circulated to the International Organizations in order that they will be able to evaluate the nature, volume and quality of the assistance to be provided to all the concerned countries.

10. Item 6 (b)

The action recommended by the ad hoc Committee for combating drought and other natural disaster in each of the affected Member States.

Pursuant to the paragraph 6 of Resolution CM/Res.465(XXVI), the Secretariat asked its Geneva and New York bureaus to contact international organizations securing the necessary assistance. Unfortunately, to date, there was no response to this request.

Representatives of some organizations observed that their respectives organizations were never informed of this request.

The Committee suggested that OAU General Secretariat should reapproach the UN bodies and its specialized agencies as well as the other international communities for more substantial assistance.

International Organizations, through their representatives, confirmed that they have been giving aid to meet emergency situations in short term and long term basis based on direct requests made by Member States. While these procedures would be continued, they would be willing to take into account interventions made by OAU individual cases in the area of research

The Representative of the African Development Bank informed the Committee that his agency is only interested in long term projects in the field of combating drought.

The Committee considered three simultaneous solutions:

First, affected Member States may request the desired assistance from the UN bodies and its specialized agencies.

Second, the OAU General Secretariat may, through its offices at Geneva and New York, contact the UN bodies and its specialized agencies for more assistance in favour of affected countries.

Third, a concerted action by both OAU General Secretariat and the UN bodies and its specialized agencies for securing more assistance for the affected Member States.

It was recommended that OAU should endevour first to provide for short term needs of affected countries and then to harness common resources for a long term action with a view to control and prevent the effects of natural disasters.

OAU should also ensure that international opinion should be sensitised through mass media.

The Committee agreed that, in spite of the assistance international organizations can afford, African countries should first rely on their internal efforts rather than the international efforts.

The Committee deemed it necessary to annex to this report the statements of the international organizations' representatives who participated in the deliberation.

CM/797 (XXVIII)
Annex I

AD HOC COMMITTEE ON DROUGHT AND OTHER NATURAL DISASTERS IN AFRICA - FOURTH SESSION (ADDIS ABABA 29 - 30 NOVEMBER 1976)

PROVISIONAL AGENDA

1. Opening of the Session at 10:00 a.m.
2. Adoption of the Agenda
3. Organization of Work
4. Review of the Contribution of Member States to the Emergency Relief Fund - AHC/DND/2 (IV)
5. Criteria for the Allocation of the Emergency Relief Fund to Member States affected by drought and other natural disasters - AHC/DND/3 (IV)
6. (a) Review of the situation of drought and other natural disasters in Africa - AHC/DND/4 (IV)
   (b) The action recommended by the Ad Hoc Committee for combating drought and other natural disasters in each of the affected Member States
7. Adoption of the Rapporteur's Report and decisions of the Committee

Contribution by Countries and Individuals to the Drought Emergency Relief Fund

I Countries

	Country	Amount in US$	Date
1.	Ghana	52,200.00	November 1973
2.	Tanzania	20,289.86	March 1974
3.	Mauritius	22,728.69	June 1975
4.	Kenya	16,852.77	July 1975
5.	Somalia	34,547.60	July 1975
6.	Botswana	2,864.23	July 1975
7.	Mali	2,245.45	August 1975
8.	Morocco	30,434.11	December 1975
9.	Burundi	7,280.68	February 1976
10.	Niger	2,415.29	February 1976
11.	Ethiopia	14,300.98	June 1976
12.	Guinea	6,204.32	August 1976
13.	Madagascar	8,159.52	August 1976
14.	Upper Volta	4,682.17	September 1976
15.	Botswana	2,544.66	October 1976
16.	Rwanda	3,154.90	September 1976
17.	Sudan	17,405.40	November 1976
	TOTAL US$	248,310.63	

II Individuals

1.	Nigerian	150.00 for W.A.	Nov.1973	Tope Acqusi
2.	Nigerian	250.00 for W.A.	Jan.1974	Tope Adewusi
3.	American	500.00	Feb.1974	African Students Union in Alabama
4.	American	50.00	Feb.1974	Julia Arnold
5.	Iranian	10.00	Feb.1974	Tylor baldwin
6.	Mauritius	32.31	Aug.1975	Socialist Working Youth League of Mauritius
	TOTAL	992.31		

GRAND TOTAL US $.249,302.94

III Assistance sent to Cape Verde Islands in January 1976(in accordance with Resolution CM/Res.450(XXV) US$20,000. and decided upon by the OAU Ad Hoc Committee on drought.

Bilateral Aid to the sister countries affected by drought

Country		Amount in US$	Kind of Aid
(a)	Nigeria	5,655,144.00	in cash
(b)	Algeria	4,000,000.00	in the form of food aid
(c)	Morocco	1,669,571.00	in the form of food aid
	TOTAL	11,324,715.00	

IV The scale of the annual obligatory contribution of Member States to the Drought Emergency Relief Fund starting from January 1976 and up to January 1980 - the obligatory contribution is 1/15th of Member States Contribution to OAU Ordinary Budget

Nos.	Member States	Amount in US$
1	Algeria	29,060.00
2	Benin	5,394.68
3	Botswana	2,544.66
4	Burundi	3,155.38
5	Cameroon	11,959.89
6	Republic of Central Africa	7,481.30
7	Congo	2,544.66
8	Ivory Coast	20,459.05
9	Arab Republic of Egypt	47,228.86
10	Ethiopia	14,300.98
11	Gabon	25,090.33
12	Gambia	3,867.88
13	Ghana	24,072.47
14	Guinea	6,259.86
15	Equatorial Guinea	2,544.66
16	Upper Volta	4,682.17
17	Kenya	11,247.39
18	Lesotho	3,409.84
19	Liberia	14,453.66
20	Libya	37,660.94
21	Madagascar	8,193.80
22	Malawi	3,460.74
23	Mali	7,125.04
24	Morocco	30,434.11
25	Mauritius	2,544.66
26	Mauritania	8,550.05

Nos.	Member States	Amount in US$
27	Niger	6,463.43
28	Nigeria	35,574.32
29	Uganda	8,906.30
30	Rwanda	3,155.38
31	Senegal	16,336.71
32	Sierra Leone	9,618.81
33	Somalia	3,867.88
34	Sudan	17,405.46
35	Swaziland	2,544.66
36	Tanzania	10,025.95
37	Chad	5,903.61
38	Togo	6,361.65
39	Tunisia	13,588.48
40	Zaire	15,624.20
41	Zambia	15,827.77
	Total	508,931.67

Criteria for the Allocation of the Emergency Relief Fund to Member States Affected by Drought and Other Natural Disasters

1. Area Affected
2. Deficit of Crop Harvest
3. Damaged Cultivated Area
4. Quality of Crop Produce Destroyed
5. Number of Death
6. Number of People Suffering
7. Population to be Fed
8. Number of Livestock Lost
9. Value of Stock Destroyed
10. Loss in Export Income

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Annex 4

DROUGHT AND OTHER NATURAL DISASTERS IN AFRICA

DROUGHT AND OTHER NATURAL DISASTERS IN AFRICA

A - ETHIOPIA

1. Ethiopia has suffered from drought and famine throughout history; however, it suffered from the worst drought/famine in recent memory in 1973, when an estimated 100,000 people died. Since then, drought has persisted to a serious extent in some areas, but famine has been controlled by the relief operations.

2. The country has been divided roughly into four sections to give a more detailed account of the relief and rehabilitation situation and needs:

(i) Highland agricultural areas,
(ii) Pastoral areas,
(iii) South-Western Ethiopia and
(iv) Western Ethiopia

Highland agricultural areas

3. The eastern escarpment areas of Wello, Tigre, Northern Shoa and Southern Eritrea were the areas which suffered most during 1973. The problem was caused by the lack of rain and the consequent shortfall of the harvest in the 1971-1973 period, followed by an almost total failure of the March to May rains in 1973, causing the complete failure of the 'belg' harvest.

4. Because of two reasonably good years of rainfall and the seed and oxen distribution which has taken place, Wello has largely recovered, although precariously. Tigre has not fared as well, due to continued drought, poor soil conditions, bad farming practices and insect attacks. The districts worst affected are Agame, Adwa and Hulet Awlalo. Sites are in the process of being selected in Raya Azebo and Shire awrajas for the resettlement of those people.

5. A protion of the escarpment area has suffered from a rainfall shortage in March 1976, which is expected to hurt Tigre the most. Because of this, and to facilitate the recovery of these agricultural areas, the Relief and Rehabilitation Commission feels that it needs a large food-for-work programme as temporary measures until rehabilitation/development programmes became effective in dealing with the problems of the area.

6. In many cases food-for-work, while offering relief for those in need, would help to solve the soil erosion problem and provide food on resettlement sites until the first harvest.

7. Eritrea is traditionally an importer of food grain; it may suffer from food shortage due to transportation difficulties.

8. The highlands of Harrarghe, the south-east of the country, were also affected by drought in 1973. In addition there has been a serious crop failure in 1975-1976 main harvest in the Jijiga area. This failure will add to the problems of the lowlands, as it usually provides market surpluses of maize and sorghum for the lowlands.

Pastoral areas

9. The southern pastoral areas of Harerge (Ogaden), Bale (El Kere) and Sidamo are the most seriously affected in the country. Their current problems started over a year and a half ago.

10. In the Ogaden a study in June 1974 warned of the precarious situation in the area. When the short rains in the area failed in September-November 1974, the situation became serious, deteriorating to the point where relief centres were needed and set up in March-April 1975. From March 1975 the population in the relief centre of Ogaden alone has risen from 30,000 to currently around 100,000. The main rains during March-May 1975 were late, but, although less than normal offered some relief from the drought. Again in September-November 1975, the rains failed. Those rehabilitation projects set up to do dry farming in this season also failed, and the situation in general began to deteriorate further.

11. El Kere district in Bale is similarly affected as the Ogaden, although the total population of the area is less.

12. Lowland Sidamo is also suffering from a similar situation, although until recently the drought has not been as severe. Currently there are reports of serious water shortages and increasing problems due to continued rain failure.

13. The pastoral areas of Wello and Tigre also affected in 1973, seem to have recovered well, although herds are nowhere near their pre-drought size, leaving the people currently in an extremely vulnerable position.

South-western Ethiopia

14. The province of Gemu Gofa is probably the most underdeveloped in Ethiopia, much of the relief grain having to be air-dropped because of the poor and/or non-existent road infrastructure. Chronic problems of over-population, drought and soil depletion plague the area.

15. Drought has affected the nomadic areas of Geleb and Hammer Baco where conditions are reported to be deteriorating. The Konso area will also continue to be in need of relief. Resettlement programmes are of the utmost importance.

Western Ethiopia

16. Western Ethiopia is more sparsely populated than other regions, and has not suffered from drought or large scale famine. In fact a major problem has been flooding, which in the Gambella region of Illubabor Province has caused serious difficulties.

17. Over the last couple of years the western areas of the country have had unusually high rainfall, possibly attributable to a change in the rainfall pattern in the country.

18. The major interest that the region holds for the relief and rehabilitation effort is in terms of resettlement possibilities. Many areas have excellent potential for resettlement/development from drought affected areas, once roads are built and malaria and tse-tse fly are controlled. A number of areas have already been opened up by the Relief and Rehabilitation Commission, notably the Didessa Valley.

Present Relief Situation

I/Full Relief

19. People who are on full relief aid are those who are totally dependent on the Relief and Rehabilitation Commission for their food, health care, clothing, shelter and other human needs. These are the people who will die within days if relief aid ceases to reach them.

(a) Shelter	257,000
(b) Daily 400gm. ration recipients	225,000
Total	482,000

Details

Province	In shelter & outside shelter	Daily ration receipient
Harrar	105,000	80,000
Tigrai	18,000	44,000
Wello	10,000	35,000
Sidamo	15,000	15,000
Bale	65,000	26,000
Gemu Gofa	7,000	25,000
Others	47,000	10,000
Total	257,000	225,000

II/Food For Work

150,000 people each has 4 to 5 dependents (600,000 persons).

20. These are people who own relatively good land, but are waiting for good rains and the good harvest.

III/Partial Relief

100,000 people each has 4 to 5 dependents (400,000 persons).

21. These are people who need food assistance in different places at different times and with varying amount of food to be distributed.

Resources at the disposal of the Relief and Rehabilitation Commission

(a) Grain 19,450 tons of food

Details	
Dessie	2,000 tons
Mekele	450 tons
Rift Valley	3,000 tons
Grain Corporation	4,000 tons
Setit Humera	3,000 tons
Asmara	4,000 tons
Didessa	1,000 tons
Distribution centres	2,000 tons
Total	19,450 tons

(b) Transportation

The fleet of the Relief and Rehabilitation Commission consists of 342 vehicles.

Details
186 trucks(of which 117 have 4-wheel drive)
52 trailers
74 4-wheel passenger cars
30 other vehicles, such as buses, motor bykes etc.
342 Total

22. It has been indicated above that at present there are:

(a) 482,000 persons on total relief aid

(b) 150,000 people (600,000 persons) on food for work programme

(c) 100,000 people (400,000 persons) on partial relief aid.

23. An increase in the population of dependents will require extra grain and extra vehicles in addition to the increased transport costs.

24. The number of people seeking relief aid has not diminished since 1974. On the contrary, the number has dramatically increased by new developments particularly in the provinces of Harrar and Sidamo. The situation in Wello has drastically changed for the better.

25. Requirements

(a) Grain requirments

i) 482,000 people requiring 400 grams per person per day

482,000 x 400gms. = 193 tons

ii) If food is given on a Food For Work basis the individual requires 3 kilos per day

Food For work	150,000 x 3 kilos	= 450 tons
iii) Partial Relief	100,000 x 150grams	= 15 tons
Total per day		= 658 tons
Grand total for one year		= 240,000 tons

(b) Transportation and other logistical requirements

i) The total grain requirement for one week is 4,600 tons Transportation of 4,600 tons from the RRC storage to distribution centres requires a fleet of 575 five ton capacity trucks. This allows for 20% of vehicle off the road and assumes that each operating vehicle will make two trips per week.

If other types of trucks are considered, 145 twenty ton trucks (with trailers) will be needed to move 240,000 tons.

Cost of 575 five ton trucks = 575 x 40,000	= $ 23,000,000
Cost of 145 twenty ton trucks =145x110,000	= $ 15,950,000
Total	$ 38,950,000

ii) The average cost of living trucks is $120 per ton including the cost of loading and unloading. Transportation cost for 4,600 tons will be 120 per ton x 4600 = $ 552,000 per week = $ 28,800,000 per year

iii) The present payload of all trucks and trailers at the disposal of the RRC is 2,265 tons a week. This allows for 20% of vehicles off the road and assures that each operating vehicle will make two trips per week. Remainder of payload will be 2335 tons a week.

iv) Transportation cost for remaining payload will be:
2335 x120 = $280,000 a week
2335 x120x52 = $145,570,400 a year

v) The operating cost of one RRC five ton vehicle is roughly $200 per week, including maintenance, fuel and driver's salary. The operating cost of 575 five ton vehicles for one year will be:
$ 200 x 52 x 575 = $ 5,980,000

(c) Storage

26. Storage is very limited in all provinces particularly at the ports and railway stations. The immediate construction of eight 5,000 ton stores is absolutely necessary in order to avoid waste.

27. The construction of proper storage facilities at eight points in the country has been envisaged a long time ago - Dire Dawa, Jigiga, Awassa, Nazareth, Mekele, Dessie and Massawa.

28. It would be necessary to construct additional four stores to meet the requirement of having 60,000 tons of reserve. The additional four stores would be located at Addis Ababa, Kebridehar, Gode and Asmara. Each store will have a capacity of 5,000 tons and will cost $500,000. Overall cost is estimated to be $ 6,000,000.

(d) Requirement of supplementary food and medical items.
There are 700,000 people who require assistance of the RRC at present

29. Children below the age of 12, lactating and pregnant mothers and badly affected adults are usually 48% of the total population and they are the people who need supplementary food. The required supplementary food for one year is 3360,000 x 100 x 365 x 1000 = 12,264 tons. The calculation is based on 100 grams per day per beneficiary. Supplementary food items are like CSM, Fafa etc.

30. The essential medicine and equipment cost estimate for one year is $3,300,000.

31. The number of people who seek aid is likely to remain stagnant or on the contrary increase unless immediate rehabilitative measures are underway.

32. In the highland areas, particularly in Wello, it has been found relatively easy to rehabilitate those people who had abandoned their homeland in search of food and even a good number of the nomads, because donor assistance flowed in generously for purchase of oxen and restocking of animals.

33. In the lowlands of Hararghe, Bale and Sidamo, where people were essentially nomads and dependents on livestock prior to the drought, the decimation of their cattle has left them without any means of livelihood.

34. In the highlands (in Wello), rehabilitating the victims of drought had meant bringing the people to normal physical conditions, giving them grain enough for one farming season, giving them oxen and farming implements, little cash money and repatriate them to their homeland.

35. In the semi-arid lowlands, where people have never been farmers, the choice was between distributing cattle to the individuals and settling the people along the valleys, particularly Wabi Shebelli. The donor asistance has been forthcoming only for the settlement.

36. In one of the provinces of the highland, Tigrai, there is a a very serious problem of density of population aggravated by the past and present drought situations. It has been found necessary to move these people and settle them in areas, where there is less problem of population density. This is the only feasible project which the R.R.C. considers as a short term and an emergency solution to the serious problem it faces. The 180,000 people in the lowlands of Harrar, the 60,000 people in the highlands of Tigrai (Adwa and Agame) and the 30,000 people in the lowlands of Sidamo are the people who need immediate rehabilitation attention.

37. The areas selected for settlement in the Wabi Shebelli valley are from Imi in the North East to Gode, Kelafo, Mustahil and Burukur - all along the valley.

38. Most of the land in Tigrai Province is very difficult for farming, as it is rocky and mountainous. The population is beyond what the cultivable land can accommodate, and the drought situation has aggravated the situation. At present the RRC is supporting a population of 100 - 120 thousand people in these areas. As a short term solution to this problem, the following tentative settlement programme has been outlined by the RRC. Initially 30,000 people for the two districts of Agame and Adwa will be moved to Shire and Rayana Azabo. Both settlement sites can accomodate more than 50,000 people.

39. The RRC is intending to start with the restocking programme at 20 different points along the Fafah Valley. The initial number of cattle required at every site are 500 (oxen or cows) and 500 camels:

Cost of oxen	= 500 x 250 x 20	= $ 2,500,000
Cost of camels	= 500 x 400 x 20	= $ 4,000,000
		$ 6,500,000

The approximate cost for constructing water reserve (earth dams) and grazing facilities is $20,000 each. For the 20 water points and grazing areas cost will be approximately $500,000. The Grand total cost for the improvement of livestock conditions = $ 7,000,000

40. SUMMARY OF OGADEN AND TIGRAI SETTLEMENT COST

Settlement	Population	ITEM OF WORK AND COST (Eth.$)						Total cost
		Mobilization	Clinic	School	Grain storage	Settlement	Water supply	
Imi	11,800	60,112	36,000	35,400	21,000	3,600,000	67,496	3,820,008
Gode	28,400	66,112	84,000	84,000	51,300	8,550,000	162,000	8,997,412
Kelafo	35,000	229,920	96,000	105,000	63,000	10,500,000	200,200	11,194,120
Tigrai	30,000	160,000	90,000	90,000	54,000	2,588,000	354,000	3,336,000
Total	105,200	516,144	306,000	314,400	189,300	25,238,000	783,696	27,347,540
Total cost for restocking water reserve and grazing facilities								7,000,000
Grand Total Cost								34,347,540

41. MISCELLANEOUS REQUIREMENTS

(1) Helicopters

a) to transport men and emergency medical and other items to remote and inaccessible areas.

b) to evacuate those who need to be evacuated and to given special attention.

(2) Airplanes

a) to reconoitre disaster and disaster prone areas

b) to airdrop grain, food items and other supply to disaster affected people in those areas which are totally inaccessible.

c) to transport people to remote settlement sites.

d) to transport grain and other supply in areas where we have landing strips but which do not have other means of communication or in times when we do not have sufficient road transportation facililities.

(3) Running Cost

a) for fuel
b) for salaries
c) for daily labourers

(4) Boats (for emergency relief in flooded areas)

(5) Generators (energy and electricity source at relief centers)

(6) Camping Equipments

(7) Mobile Ambulance

(8) Mobile Garage (maintenance shops)

(9) Personnel

a) Agronomist
b) Civil Engineers
c) Doctors and Nurses
d) Agricultural Engineers
e) Mechanics
f) Transportation Officers

(10) Water Drilling Rigs.

SUMMARY

(a) Grain and Supplementary Food Requirement

	People	Grain
1. Full Relief	482,000	70,275 tons
2. Food For Work	150,000	164,250 tons
3. Partial Relief	100,000	5,475 tons
Total	732,000	240,000 tons
Supplementary	336,000	12,264 tons

(b) Settlement, Transportation and Medical Requirement

(1) Settlement	$34,347,540
(2) Transportation of grain	14,570,400
(3) Construction of 12 Grain Storages	6,000,000
(4) Cost of 575 five ton vehicles	23,120,000
(5) Operating cost of 575 five ton vehicles	5,980,000
(6) Medicine and medical equipment	3,300,000
Grand Total	$87,109,740

B - SOMALIA

Extent of the drought

43. The drought that struck Somalia is expected to be a continuation and a general phenomena that has been building over the years, and certain meteorological and climatological records show of the existence of dry periods:- 1950-51, 1954-55, 1958-59, 1964-65, 1968-69 and 1973-74. However the present one has been so severe in intensity, duration and area coverage.

44. The following table sheds light on the increasing rate of the affected population inside and outside relief camps.

Affected Population

Month	Year	Inside R. camps	Outside R. camps	Under Rehabilitation	Total
Nov.Dec.	74	112,000	-	-	112,000
January	75	170,000	60,000	-	230,000
February	75	183,000	170,000	-	353,000
March	75	200,000	300,000	-	500,000
April	75	250,000	450,000	-	700,000
May	75	82,000	725,000	168,000	975,000
June	75	82,000	725,000	168,000	975,000
July	75	82,000	725,000	168,000	975,000
August	75	82,000	725,000	168,000	975,000
September	75	82,000	725,000	168,000	975,000
October	75	-	-	250,000	250,000
November	75	-	-	250,000	250,000
December	75	-	-	250,000	250,000

45. The number outside the relief camps has later reached 725,000 thus showing a total drought stricken population of 975,000 persons; of this figure the Government intends to rehabilitate a human force of 168,000 nomadic population in mixed agricultural and fishery sectors by April 1975.

46. The ten most affected regions were: Togdheer, Sanaag, Bari, Nugaal, Mudug, Galguduud, Hiraan, Bakol, Gedo and the Eastern part of the North Eastern Region.

47. The bulk of these regions fall within the nomadic and dry regions that rely on livestock raising as the only source of income and subsistance. These regions also have no agriculture of magnitude nor fishing occupation to fall back on.

48. The effects of the drought included drying up of surface and some of the sub-surface water, loss of large number of animal stocks including wild-life, crop failure, serious decline in exports, snowballing of imports and the consequent deterioration in the balance of payments as well as a decline in the purchasing power of the population.

The Current Drought Effects on the National Economy

	Type of Losses	So. Shs.
A.	Economic Losses	
	1. Animal Losses	1,940,000,000
	2. Balance of Payment Deficit 74	80,000,000
	3. Balance of Payment Deficit 75	869,000,000
	Sub - Total	2,889,000,000
B.	Expenditure on Relief Operations	
	1. Expenditure on all Affected people	1,149,320,220
	2. Other expenses	340,000,000
	Sub - Total	1,489,320,220
	Grand - Total	4,378,320,220

The loss of Livestock in the seriously affected Regions(in 000)

Region	Cattle	Sheep & Goats	Camels	Value in million (So.Shs.)
1. Sanaag	80	680	60	201.0
2. Togdheer	100	1,500	110	367.0
3. Bari	50	680	50	170.0
4. Nugaal	100	800	80	250.5
5. Mudug	140	700	50	235.5
6. Galguduud	100	500	40	172.5
7. Hiiraan	70	300	40	126.5
8. Bakool	200	400	50	240.0
9. Gedo	160	200	40	177.0
Total	1,000	5,760	520	1,940.0

Measures undertaken for combatting drought

49. Beginning with the first of January 1975 when the Relief Operation was in a full swing and relief camps were being established throughout the affected regions, the Government despatched three teams to identify possible resettlement areas on the inter-river areas, the coastal towns of the country and the possible improvement of the range lands, livestock and water resources of the affected areas.

50. When the Government removed the people to the new agricultural and fishing areas, it started the necessary land clearing, construction of the dwelling and sanitary places and the establishment of a planned new cities in the areas. The agricultural sites were expected to clear already at least 3,000 hectares for cultivation so that it could be the start of a training programme.

51. Similar action was done at the coastal fishing starting with the introduction of the nomadic population; some of whom had never seen a sea or an ocean let alone eating fish in their existing life. Pyscologically the eating of fish and fish products is a taboo among the nomadic population, and to arrest this problem and make them eat in order to overcome the dietary deficiency becomes another problem. At the sametime these people need to learn swimming and gradually but slowly a time to accept the environment along the coast, the new occupation and the natural resources that can be obtained from the sea; while this will of course take a period of time, a start has been made.

52. These people would have left the camps back to the normal nomadic life style, but because of their physical weakness, the loss of all their rural population during the drought, they accepted the helping hand of the Government and are now dutifully adjusting themselves to the new environment and occupational outlet.

Summary of Total Costs of the Rehabilitation and Resettlement Programme(000 So.Shs.)

Sector	Phase I	Phase II	Total
1. Livestock and Range	180,785.7	190,394.8	371,180.5
2. Agriculture	309,131.8	-	309,131.8
3. Fisheries	307,220.0	256,720.0	563,940.0
All	797,137.5	447,114.8	1,244,252.3

4. Transport expenses arising from the transfer of people to new settlements site 5,739.0

N.B. - The 5.7 million shillings of transportation expenses is computed at the rate of 34.16 So.Shs. for each of the 168,000 persons to be transferred.

53. It is expected to cultivate in the three agricultural areas a total figure of 66,000 hectares using cash crops like cotton, sesame, banana, soyabeans, maize and sorghum, all types of vegetables and fodder crops for a livestock population expected to reach 12,750 in the three agricultural areas. The number of layers required to fortify the dietary needs is expected to reach 45,000 as well. In the fishing areas it is expected to obtain immediately 2,500 fishing boats and fishing gear and another 3,750 is planned as a medium measure. Along with these repair shops, fishlanding sites and cold storage facilities are envisaged so that the natural resources that around the long coastal areas of the country are fully utilized; and the present dependence on meat and milk in the rural and urban areas can be reduced, and fish as an alternate diet will economize the livestock industry and the bulk of fish catchs can find external markets.

54. These plans are envisaged for the present 168,000 persons already resettled, but the long term of sedentarization of the agricultrual and coastal resources goes far beyond that so that the country can once and for all diversify its resources from a monoculture to total resource exploitation and maximum utilization for the ever growing masses, especially among the very young and school leavers.

Breakdown of cost of emergency projects in the fisheries sector according to type of investment (cost in So.Shs.million)

Type of Investment and location	Cost of Items Immediately Required	Medium-Term Investment Requirement		
		Quantity	Cost	Total cost
A. Capital Investment				
1. 1250 fishing boats	87.50	1870	130.90	218.40
2. Fishing gear for 1250 boats	25.00	1870	37.90	62.40
3. 6 fish landings	24.00	6	24.00	48.00
4. Repair Shops	3.00	-	-	3.00
5. Cold Storages				
a) 2x100 tons cold storages	6.0) 27.00	-	-	27.00
b) 3x800 tons cold storages	21.0)			

6. a) 3 Refri boats 20-25 HP 3.0				
b) 3transport boats 3.0	6.00	-	-	6.00
7. 4 boat build.yards	12.00	-	-	12.00
8. 14 dry sheds	1.40	-	-	1.40
9. Transport 20 trucks & 22 L. Rovers	3.00	20 trucks	2.00	5.00
B. Auxiliary Services				
10. Housing	26.00	-	52.00	78.00
11. Health, Education and Water(HEW)	21.30	-	-	21.30
12. Training Equip.	1.45	-	-	1.45
C. Operational Costs				
13. Food and clothing	59.94	-	-	59.94
14. P.O.L.	4.00	-	10.30	14.10
15. Staff salaries	4.93	-	-	4.93
16. Administration	0.70	20	0.12	0.82
Grand Total	307.22	-	256.72	563.94

55. In the areas already devastated by the drought, the most essential and basic criteria required is to bring the range land back to its previous natural state, so that once more the flora and fauna that existed in the country again flourish for a better human habitat. Already a UN funded programme on range improvement and management is ongoing, and a number of qualified and experienced staff are available while others are under training. A number of steps have been taken in many of the drought stricken areas and investigations are under way in other areas.

The need and requirement for combatting drought

56. It is most essential to carry out detailed studies of the resources, human, livestock etc. that have been depleted during the programme of the drought, at the same time to conduct daily recording system of losses incurred and the amount of food item, medicament, transport vehicles, availability of water and veterinary drugs as well as the number of man hours that have been undertaken and most likely would be required for making the drought under full control.

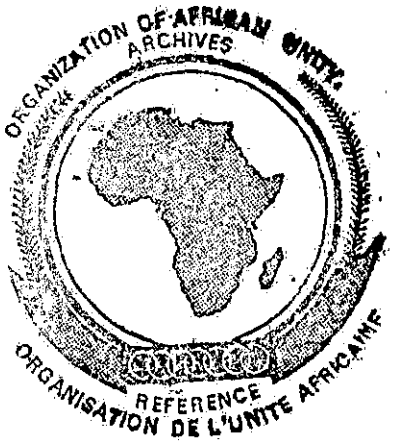
57. In view of the suddenness of the drought at the initial stage, the vastness of the area covered and the remoteness of some of the areas hit by the drought due to lack of all weather or feeder roads, it was not possible to assess the magnitude of the drought at that stage.

58. There is great need to start and implement an immediate programme of range management and soil conservation as the range lands have been drastically affected by the drought. This programme envisages the formation of 17 famine grazing resources, 16 manual fodder producing units, 4 immediate semi-mechanized fodder producing and 4 medium term semi-mechanized units. Similarly there is need for the construction of wells, water points and other rural programmes.

Summary of the Total Costs of Projects Located in Rangelands (Value in So.Shs.'000)

Category	1975	1976	Total
1. Livestock Integrated with Agricultural Projects	18,752.8	-	18,752.8
2. Poultry Farms	18,241.0	-	18,241.0
3. Mixed Farming Reserves	9,958.7	-	9,958.7
4. 17 Famine Reserves	18,275.0	10,370.0	28,645.0
5. 16 Manual Fodder Producing Units	68,126.4	55,622.4	123,728.8
6. 4 Immediate Semi-Mechanised Fodder Producing Units	62,640.8	32,841.6	95,482.4
7. 4 Medium-Term Semi-Mechanised Units	-	95,482.4	95,482.4
Total	195,994.7	194,316.4	390,311.1

59. The rainy season of October-December 1975 was below average and the distribution of the rains was not even. It is therefore reckoned that the animal population in the country will not recover as required and the foreign currency earned during the January 1976 peak period will not reach the previous levels; thus the Government will have to find further assistance for the 1976 budget in order to carry out its annual activities while at the sametime the recovery and rehabilitation programme must go hand in hand with the other development efforts of the nation.



C- SUDAN

Current extent of the drought and desert encroachment

60. The drought of the last three years (1971-1973) was accompanied by a sharp decrease in average annual rainfall. It has resulted in a tremendous decrease in the available soil moisture and induced a remarkable decrease in total forage production. This decrease in soil moisture also induced a successional change in the floristic composition affecting the value of the grazing potentialities.

61. The change in forage composition is mainly attributed to the fact that moisture level during drought is insufficient to meet year-long requirements of perennial species. The overall tendency now is toward the development and survival of short-lived annuals which usually mature and drop their seeds before soil moisture stress is sufficient to kill them. Annual species make up more than 60% of the overall vegetation composition.

62. The drought, coupled with land misuses such as seasonal fires, overgrazing and extensive farming of marginal land have assisted sand dune movements into the dry savannah endangering the rich resources potentialities of the dry savannah region.

63. Due to the drought and desert invastment , the current grazing potential is not in balance with the stocking rate (40 million heads). Several livestock deaths were reported. The movements of the nomadic tribes from the affected areas in the north to the south have resulted in several tribal frictions and disputes on the available grazing lands.

64. Gum Arabic is a minor forest product of the Genus Acacia. The Sudan used to produce about 85% of the total output, but because of the drought that has been experienced in the gum belt of Sudan during the last five years, the production has decreased tremendously from an average of 45,000 tons annually to only about 20,000, tons and the value of the stock lost is about $20,000,000.

65. The drought has affected gum production in three main areas:

(a) Because of failure to grow agricultural crops in the northern parts of the gum belt people tended to leave the land to the Gezira Scheme area for cotton picking and therefore a sizeable portion of the gum belt was not being worked.

(b) Because of poor pastures greater pressures were exerted on the natural flora and hence considerable distruction to gum belts to provide fodder and other needs was experienced in many parts of the belt.

(c) Because of adverse environmental conditions and the successive seasons of drought, growth was retarded, trees were weakened and hence extensive areas of Acacia Senegal trees, were wind blown.

66. The gum belt of Sudan is a natural buffer zone between the desert in the north and the agricultural areas in the south. Therefore any distruction or misuse in this belt will induce desert encroachment. This is of paramount importance not only to the Sudan but probably to the world at large. The region also supports an enormous population of animal wealth totalling about 20 million heads of camels, cattle, sheep and goats.

Area affected

67. The total area that is currently affected by drought and desertification covers 750,000 square km., lying between latitude 12° and 18°North and along the Nile strip northwards up to the border with Egypt and between longitudes 22° and 34° East. From an ecological view point, this area covers the desert proper area, the semi-desert and the northern fringe of the dry savannah.

Effects of the drought

68. Changes in climate (rainfall) have affected average productivities of most cultivated areas in northern savannah. For producing 73,000 tons of groundnuts in 1973, the needed acreage was almost five times more than in 1961. The decrease of sesame production was approximately in the proportion of 20 to 1 during the period 1961-73. In Kordofan Province, dura production went down from 424 kg./feddan to 154 kg./feddan: maize fell from 333 kg./feddan to 154 kg./feddan and "dubhn" - bulrush millet (Pennisetum typhoideum)- production slipped from 542 kg./feddan to 71 kg./feddan (proportion of 8 to 1) during the same period.

69. Since food crops production is so fastly decreasing, the northern savannah region is on the edge of disaster, and there are signs of progressive abandon of agriculture in many areas. There was a consistent decrease in the productivity of all crops especially sesame, groundnuts, bulrush millet, maize and sorghum, in the area affected by drought in the country during the period 1961-1973.

Population to be fed

70. The area affected by drought encounters the semi-desert and the northern fringe of the dry savannah. This zone comprises: Kassala, Red Sea, Kordofan and Darfur Provinces. According to the latest census, the total number of inhabitants of these provinces is:

Province	Urban	Rural	Nomadic	Total
Red Sea	169,083	129,722	166,238	465,043
Kassala	235,319	639,050	249,018	1,123,387
Kordofan	262,005	1,534,067	406,274	2,202,346
Darfur	210,420	1,566,174	404,567	2,181,161
Total	876,827	3,869,013	1,226,097	5,971,937

The need and requirement for combatting drought

71. The Government of the Sudan, with the help of UNEP, is preparing an associate case study and programme of action composed of about 12 projects in the field of desert creep control. The donor meeting is scheduled to be held in Khartoum around November 1976. The total capital required for the implementation of the action programme is around 11-15 million U.S. Dollars.

72. No outside assistance was received for the restocking of the gum belt and the improvement of the gum production. The Sudan Government plan is to restock this gum belt by reafforestation of Acacia Senegal trees.

73. The type of assistance needed is in the form of equipments, transport facilities and funds for the establishment of nurseries for the production of seedlings to be planted by the small farmers in their private holdings and also in the State farms and forest reserves. What is needed is as follows:-

Description	Cost
50 Water pumps	$100,000
10 Land-rover Pick-up	100,000
2 Land-rover station wagon	40,000
10 5 tons lorry trucks	200,000
10 Water tankers	100,000
20 Tractors	120,000
20 Trailors	50,000
20 Sowers	50,000
Funds for extension services and running	90,000
Total	$850,000

D - CHAD

Present extent of the drought and the nature of other natural disasters.

74. The effects of the drought of previous years to which have been added the damage done by locusts, grasshoppers, rodents etc., are such that the Sahelian Zone remains a sensitive area requiring all types of assistance - food supplies, medical supplies, seeds, wells, vehicles, reconstruction of roads, reconstituting livestock resources, eradication of rats and so on.

Measures taken so far to control drought and other natural disasters

75. The Government of Chad has taken the following measures for controlling the effects of drought:

(a) December 1972 - Establishment of an "Operation Emergency Aid" Department to receive, store, distribute and transport food aid.

(b) 1973 - Establishment of a National Committee on Drought Control composed of the highest ranking Government officials.

i) Establishment of a technical committee composed of experts from the various sectors (doctors, veterinary doctors, agronomists etc.), to provide the National Committee with the necessary data for decision-making.

ii) Establishment of a permanent secretariat to compile all information related to drought, resources needed for control, assistance granted etc.

(c) 1975 - Establishment of an office for the control of Natural Disasters (D.L.C.C.N.), to replace the permanent secretariat and the "Operation Emergency Aid" Department. This office is entrusted with the task of centralizing all the necessary data and organizing campaigns against any disaster.

Aid received

76. (a) Food aid

81,924 tons of food supplies were received between 27/2/1973 and 30/4/1976.

(b) Material assistance - transport vehicles
113 lorries of different tonnage and 28 trailers and one ferry-boat for transporting vehicles accross the Chari River. 89 other vehicles for normal and all types of road.
Storage equipment: 22 hangars ranging from 600 to 1,000 ton capacity, including 15 in large secondary food supply distribution centres.
Loan of vehicles and air crafts for food supply.

(c) Personnel assistance
Establishment of posts of expert for stocks, stock management, accounting, transport etc.

(d) Financial aid

Approximately 2,000 million CFA frs. were made available to the National Committee.

(e) Revaluation of normal projects with due consideration to the availability of personnel, equipments and funds.

Areas affected

77. Nearly the whole country was affected in 1973-1974-1975, but only the Sahelian and Saharan regions require assistance for 1976-1977, in other words, approximately 2 million inhabitants distributed in eight districts constitute the area affected.

Size of crop production

78. Approximately 75% of the 1975-1976 estimates

Decrease in crop production

79. Deficit of 72,000 tons.

Farming area affected

80. 543,000 hectares.

Quantity of crops destroyed

81. 72,000 tons, including 30,000 tons on account of insects and rodent damage.

Number of death

82. Insufficient data, probably a thousand or so persons.

Number of inhabitants afflicted

83. More than 830,000 inhabitants.

Number of inhabitants to be fed

84. 2,042,000 inhabitants in the affected areas.

Heads of livestock lost

85. Between 1971 and 1973: 1,700,000 oxen (ie, 35% of the livestock), 300,000 sheep and goats, 20,000 camels and 10,000 donkeys. There is insufficient information to quantify the losses in 1974 and 1975.

Value of crops destroyed

86. 2,085 milliard CFA frs.

Assistance and equipment needed for the control of drought and other natural disasters in order to assess the volume of aid required.

87. At the Government level, one 8 to 12 seater two-engine plane would be needed for the transport of officials, experts and first-aid teams, between the capital and the remote areas which are cut off during the rainy season owing to lack of proper roads.

88. At the level of departments there is need for the construction and equipping of a garage for the servicing of vehicles required for the control of disasters.

89. (a) Health:- food supplies rich in vitamins, vaccines, cold storage vehicles and medical equipments.

(b) Livestock:- vitamin and mineral - rich feed, drugs, cold storage vehicles for all types of road and medical equipments.

(c) Agriculture:- fertilizers, seeds, hangars, equipments and products for the eradication of rats.

(d) Forestry:- reafforestation and replanting of natural gum tree plantations that were destroyed.

(e) Water resources:- material and financial means for the sinking, repair and maintenance of wells in the areas deserted by the people between 1971 and 1975.

(f) Public works: - material and financial means for the repair of 4,158 km. of feeder roads that link the major centres in the affected areas.

E - BURUNDI

The present extent of the drought

90. During the agricultural season of September 1974-August 1975, the Ruzizi Plain suffered the most as a result of the dry FOEN winds.

91. Below is the quantity of rainfall recorded in mm. for the period September 1974-August 1975.

OBSERVATION STATION

Month	Nyakararo	Mparambe	Cibitoke	Randa	Cihanga	Mazage	Bujumbura Area
Sept.74	72,7	53,7	52,3	11,9	19,9	29,9	22,9
Oct. "	38,1	38,8	29,4	28,7	31,9	32,0	20,0
Nov. "	195,8	128,0	163,2	83,9	62,9	96,8	130,2
Dec. "	60,5	44,9	36,9	82,8	68,3	129,7	58,3
Jan.75	84,0	99,2	156,9	121,3	76,0	198,1	122,2
Feb. "	36,6	32,3	109,8	125,2	68,8	97,1	74,5
Mar. "	154,7	225,5	104,3	134,9	97,2	150,2	132,1
Apr. "	65,5	83,4	98,9	111,5	66,0	130,8	61,2
May "	15,4	19,4	22,5	16,7	18,7	41,1	10,3
June "	0,0	18,7	1,7	12,8	25,2	2,5	10,1
July "	12,6	6,5	19,2	30,3	36,1	5,5	15,9
Aug. "	0,0	0,0	0,0	0,7	2,7	0,0	0,0
Sept.-Aug.	735,9	745,4	805,1	760,7	575,8	913,7	657,9
Normal 1931-1961	866,2	902,0	971,0	1064,0	810,0	1020,)	832,2

92. As a result of the drought, there was a drop in food crop and export crop production. Cottonseed production which was formerly 4,058,664 kg. in 1972-1973 in the Ruzizi Plain dropped to 3,820,972 kg. in the 1974-1975 harvest. The average production per hectare fell from 656 kg. to 552 kg. during the same period. As a result many families suffered from lack of sufficient food stuff.

93. The damage caused by the floods and erosion during the second and fourth quarters of 1975, added to the decrease in crop production caused by the drought.

94. The overflowing of the rivers of the plain and the unusual rise in the level of Lake Tanganyika constitute permanent threats. In November 1961, the dams on the Muzazi at Mubone and Bugoma, on the Kikoma at Buhinyuza and on the Murago at Rubirizi were carried away by the flooding of these rivers thus reducing, considerably, the possibilities of irrigation for the rice crop. The alarming development of Lake Dogodogo in the Cibitoke District also dates from the same period. During the second quarter of 1964, the level of Lake Tanganyika rose until it reached and damaged the buildings in the city of Bujumbura situated in an area normally inaccessible to water.

95. During January, February and March 1976, heavy hail destroyed the crops nearly all over the country; tornadoes coupled with hail even took some lives. The losses of food crops, bananas and haricot beans in particular is probably in the neighbourhood of hundreds of millions of francs. An exact evaluation of the loss of life and material damage has not yet been made.

Measures undertaken for combatting drought and other natural disasters

96. To combat the drought, an area of 5,000 hectares has been arranged for intensive cultivation in the centre of Imbo - a natural region grouping the Plain of Ruzizi and the coastal plain of Lake Tanganyika - of which approximately 3,500 hectares will be under irrigation.

97. The Bujumbura rice fields situated in the Mutimbuzi commune were provided with other means of water supply for irrigation; there is regualr maintenance of the canals.

98. In the Gibitoke area, the northern sector of the Ruzizi Plain, 70 km. canal situated mainly on the Nyamagana river, is regularly kept up. This canal can serve as a drain during the rainy season and as an irrigation canal for the dry season crops (maize, beans, potatoes, groundnuts etc.).

99. The fight against floods centred on:

(a) a vast reafforestation programme is underway in areas overhanging the Ruzizi Plain.

(b) This afforestation prgramme is coupled with a programme of construction of anti-erosion trenches, which will reduce the volume of land washed away by the run-off until the newly established trees cover and protect the soil of the piedmonts.

(c) Erosion control measures, by the digging of anti-erosion ditches and the planting of forests, are underway throughout the country.

(d) In the Gihanga (Imbo-Centre) a drainage system has been established and is regularly maintained by the department of Rural Development in the surrounding areas of Kajeka and Ninga rivers.

(e) The regional project for the development of the Tanganyika Lake basin including the hydro-meteorological study for the evaluation and the forecasting of disasterous floods of the Lake, is another measure undertaken to combat natural disaters.

Assistance received

100. The aid is supplied by EDF

Description	Amount in Burundi frs.
Development of Imbo	1,224,300,000
Final phase estimate	373,000,000
Study for the development of the Ruzizi Plain	14,375,000
Study for the development of Buhoro Plain	1,050,000
Protection against the floods of Lake Tanganyika	41,000,000
TOTAL	1,654,225,000

101. EDF, WFP and the Kingdom of Belgium have given food supplies for the affected families - beans, barley flour.

Areas affected and value of losses

102. The region of the Ruzizi Plain was affected most during the 1974/75 harvest. However, the whole of the country also suffered from scarcity of rains during the normal season and this resulted in a very pronounced drop in production per hectare in both food and export crops.

(a) Food crops

Crops	Production kg. per hectare		1971 - 75 in %
Leguminous	1971	1975	
Haricot beans	800	868	108
Peas	700	682	97
Groundnut	900	1,208	134
Cereals			
Maize	1,500	1,708	113
Sorghum	2,000	1,162	58
Elensine	800	895	112
Wheat	800	1,006	125
Rice	2,500	2,271	90

Food Crops	Production Kg./hectare		
Roots and tubers	1971	1975	1971 - 75 in %
Cassava	20,000	10,309	51
Sweet potatoes	12,000	6,836	57
Potatoes	8,000	5,376	67

(a) Main export crops

	Production in tons		
Crop	1971	1975	75-71 in %
Coffee	23,030	19,656	78
Cotton	3,322	1,422	42

103. The total food production which was 9,542,178 tons in 1971 fell to 5,502,945 tons in 1975 ie, 3,949,233 tons representing 41% less as compared to 1971.
The 1975 production being estimated at 79,914,887,000 Bu.fr., the losses suffered as a result of the 41% decrease in the crop production amount to:

79,914,887,000 Bu.fr.x41 = 32,765,103,670 Bu.fr. or US.$36,405,674.

104. The total loss of export products for the same period is 7,274 tons, in other words 25% of the 1971 products. The value of export products was therefore also reduced by 25%.

Needs and requirements for combatting drought and other natural disasters

105. Strengthening of present programmes:

(a) to combat erosion and carry out reafforestation in mountains and piedmonts,

(b) drainage and irrigation of he Ruzizi Plain and Malagarazi peneplain,

(c) drainage of swamps in the interior of the country to increase the amount of arable land during the dry season: Nyamuswaga, Akanyaru etc. and

(d) hydrometeorolgical study for a long term evaluation of the rise in Lake Tanganyika.

F - MAURITIUS

Extent and damage caused by the Cyclones

106. In February 1975, some 28,000 houses were damaged by cyclone Gervaise. Of these, 7,000 houses were completely destroyed and 6,000 were damaged beyond repairs.

107. Besides rendering thousand of people homeless, cyclone Gervaise also caused extensive damage to agricultural crops, e.g. loss to sugar earnings alone amounted to some Rs.800 million. Tea production fell by 25% representing a loss of revenue of about Rs.5.4 million. In addition the damage suffered by young tea plantations is estimated at Rs.7 million. Loss in forestry produce is estimated at 30% representing some Rs.20 million. The tobacco crop was completely destroyed and the flooding of storage sheds caused considerable damage to the stocks of tobacco leaf.

108. The social and economic infrastructure of the country such as schools, hospitals, roads, electricity, telecommunications and water supply also suffered extensive damage.

109. Mauritius, being in the cyclonic zone of the Indian Ocean, is frequently visited by violent cyclones with wind gusts of more than 150 miles an hour. In 1960, Mauritius had suffered two such devastating cyclones - Alix and Carol.

110. Following 1960 cyclones, the Government built some 14,000 cyclone - proof houses to rehouse the cyclone victims. The project was mainly financed by loans and grants from U.K. amounting to Rs.84.3 million (US$12.8 million). Those house stood well the test of cyclone Gervaise and not a single one was damaged.

Measures undertaken by the Government of Mauritius

111. The Government has always provided assistance to victims of cyclones. In the immediate aftermath of cyclone Gervaise, tents were set up for the homeless families; poles and iron sheets were distributed free for carrying out temporary repairs or to build temporary accommodation.

112. In addition, the Government is constructing through the CHA - Central Housing Authority - some 345 cyclone - proof houses costing some Rs.5.4 million (US$ 0.8 million) to rehouse those families who are still living in tents and in class-rooms of Government primary schools. The above estimate is exclusive of the cost of land and essential services estimated at Rs.3 million (US$ 0.5 million).

Needs and requirements

113. For other cyclone victims, a scheme has been worked out to construct 10,000 low-cost houses, over a period of four years as follows:

Title of the project - Mauritius cyclone housing reconstruction programme

- Duration of the project - 4 years (1976-1980)
- Cost of the project - Rs.330 million (US$50 million)
- Phasing of the project -

year 1	- Rs.65 million	(US$9.9 million)
year 2	- Rs.85 million	(US$12.8 million)
year 3	- Rs.100 "	(US$15.2 million)
year 4	- Rs.80 "	(US$12.1 million)

- Executing agencies:
  - Central Housing Authority (CHA)
  - Sugar Industry Labour Welfare Fund (SILWF)
  - Mauritius Housing Corporation (MHC)

i) (a) CHA to build 7,000 uniform-type houses, of which 5,500 will be on concentrated sites and 1,500 on individual sites;

(b) SILWF to build 600 houses (over a period of three years) on concentrated sites and

(c) MHC to provide loan finance to heads of household for the construction of some 2,400 houses on individual sites.

ii) The prototype house will have an internal area of approximately 452 sq.feet and will comprise 2 bed-rooms, a living-room, kitchen, shower and toilet.

iiii) The general characteristics of the house are as follows:
- Conventional construction in concrete and concrete blocks
- Covering slabs in concrete
- Simplified sanitation systems.

iv) Construction work is scheduled to start in October 1976. As far as possible the houses will be built within or very near to existing towns/villages so as to reduce to a minimum the cost of providing social and economic infrastructure.

v) In order to ensure the timely completion of the housing scheme, arrangements are being made for part of the construction programme to be entrusted under contract to private construction firms.

vi) The unit cost of each house, including contingencies, is estimated at Rs. 26,000. Based on current prices, the total cost of the project would be Rs.330 million (US$50 million) arrived at as follows:

	Rs.m.	US$.M.
(a) CHA - 7,000 houses	182.0	27.5
(b) SIL/F - 600 houses	15.6	2.4
(c) MHC - 2,400 houses	62.4	9.5
(d) Land Acquisition	30.0	4.5
(e) Infrastructure	25.0	3.8
(e) Contingencies	15.0	2.3
TOTAL	330.0	50.0

Financing of the housing reconstruction programme

114. The League of Arab States has already provided a loan of Rs.15 million (US$2.7 million) from the Arab Oil Fund for Africa towards the implementation of this project. There is a likelihood that European Development Fund (EDF) might provide some Rs.45 million (US$6.8 million) towards the financing of the project.

115. The Government of Mauritius has earmarked an amount of Rs.30 million (US $4.5 million) from local sources. In addition Rs. 2.5 million (US $0.4 million) now stands in the Prime Minister's Cyclone Gervaise House Reconstruction Fund and will be used for the construction of houses for the elderly and the destitute.

116. The SILWF is expected to raise its own funds for the construction of 600 houses, ie, Rs.15.6 million (US$2.3 million).

117. If funds from EDF are forthcoming to the extent of Rs.45 million (US$ 6.8 million) there will be a shortfall of about Rs.222 million (US$33.3 million) which it will not be possible to meet from local sources.

Assistance required

118. An additional amount of Rs.222 million (US$33.3 million) is required from foreign sources on soft terms to finance the implementation of the Cyclone Housing Reconstruction Programme. The project caters for the low income group and in view of the non-revenue earning nature of the project, it is highly desirable that the assistance should be on soft terms, carrying low rate of interest and repayment spread over a reasonably long period.

G - CAPE VERDE ISLANDS

Brief presentation on the Republic of Cape Verde

119. Some data:

Population	:	30,000 inhabitants
Area	:	4,033 kg^2 - 10 islands, of which 9 are inhabited
Unemployment	:	About 60% of the active population; one person out of every five is employed.
Economy	:	Agriculture - about 90% of the population are engaged in agriculture.
Agricultural production	:	Maize, banana, groundnuts, sweet potatoes, cassava, coffee, etc. 90,000 hectares of exploited agricultural surface of which 900 hectares are irrigated.
Cattle	:	Not numerous; hampered by cyclical droughts
Industry	:	Almost non-existent. Only salt and pozzolana are mined for export. These two are limited because of the dependence of companies on foreign monopolies and lack of suitable port installations. Fishery is underdeveloped.
Education	:	Illiteracy - 70% among adults, 65,683 pupils in primary education, about 6,500 in secondary education and some tens of students in higher education abroad. There is one primary teacher training school and one school for the training of low level tutors. There are 1,247 teachers, most of them have no special training. There are two preparatory schools (the two years preceeding entry into high schools or the technical school), two high schools (with an enrolement of 1,717 students) and one technical school.

Health	:	One doctor for every 15,000 inhabitants. Some islands have no doctors. Cape Verde has 16 doctors, two of them are surgeons. The Santo Antao Island which has over 45,000 inhabitants has only one doctor. The country has two hospitals with 367 beds, five nurses with an average of ten beds and 27 health posts. The health situation is even made worse by the inadequacy of means of transport and communications. Housing condition and hygiene are at the lower ebb.
Perspectives	:	Rural development projects and establishment of small scale industries. Priority is given to investment in the social sector.
Climate	:	Dry sub-Sahara along the semi-arid zone of the Continent with irregular rainfall below 250mm. per year.
Exports	:	Exports at present cover only 5% of imports. During the last few years, the country has produced only 1.2% of the national food requirement in maize though this is the basic food of the population. The balance of trade deficit is increasing every year because of the gradual decrease in exports which is the direct consequence of the drought. The economic and social situation have been worsened as a result of the massive return to the country of thousands of Cape Verdians repatriated from Angola and Portugal - 7,000 have already returned and more are expected to return to the country.
Water Supply	:	Water Supply is one of the country's most serious problems. Some Islands count on desalination factories. It is hoped to exploit underground water resources for hygienic and continous water supply.

Effects of the Drought

120. The drought resulted in:

(a) Reduction of agricultural production, famine, exodus of the population to cities or other countries and increased import of food.

Agricultural Production (Tons)

	1966	1971	1972	1973
Maize	12,008	910	-	714
Beans	7,290	271	-	144
Sweet Potatoes	3,880	1,469	212	1,055
Cassava	2,791	1,067	235	526
Banana	5,737	5,409	5,187	4,690
Sugarcane	8,912	9,070	5,719	9,741
Coffee	106	184	76	8

In 1975 agricultural production reached the following levels as compared with the levels of normal production:

Santiago	50%
Togo and Brave	90%
Other Islands	5%

(b) Gradual decrease of cattle:

	1967	1971	Reduction	%
Bovine	27,689	14,804	12,885	45
Sheep	3,394	1,645	6,745	80
Goats	79,352	47,482	31,870	40
Horses	2,860	1,789	1,071	37
Asses	16,221	10,685	5,536	34
Pigs	37,551	25,051	12,500	33

(c) Loss of human lives in relation to the population:

1973/1776	50%
1900/1903	25%
1940/1943	15%
1946/1948	35%

These losses are higher than in the continental Sahel.

(d) Soil erosion.

(e) The drought has forced the majority of the active population who depend on agriculture (90%), to depend on jobs hastely created as outlets for the population by the Portuguese Government. In view of the unproductive and foreign nature of these jobs, they now represent but a dead heavy weight on the young Republic.

(f) During the last few years, migration has taken a very sharp turn because of the drought. About 50,000 workers have left for Portugal to replace Portuguese migrants who have left Portugal to work abroad. Several others have gone to western countries and especially to Portuguese colonies. Thousands of Cape Verdians are expected to return home from Angola and Portugal.

Perspectives

121. (a) WFP aid for the preservation of soils and food products — US $8,898,000
WFP also gave an additional aid of — US $ 315,210
for the refugees from Angola

(b) UNDP has set aside aid worth — US $4,534,395

(c) UNICEF has set aside aid worth — US $ 230,000

(d) UNESCO " " " " " — US $ 500,000

(e) UNHCR " " " " " — US $ 250,000

(f) ECA (food aid)

(g) Sweden — US $ 750,000

(h) Aid for the combat of drought given by the OAU Ad Hoc Committee on Drought — US $ 20,000

(i) Several projects sponsored by other UN Bodies and promises of financing development projects on the basis of bilateral agreements;

(j) Mention should also be made of the importance of certain projects which are being studied and which, in principle, will be financed by Holland and U.S.A.

(k) For its development, the Cape Verde Government is counting on increased assistance from certain organs, in particular, ECA, while equally striving to strengthen its relations with other International Organizations and Bodies and with African and non-African countries.

Needs, requirements and magnitude of aid needed

122. Since the Government's basic problems affect the basis for the economic and social development of Cape Verde, financial and technical aid are absolutely indispensable and should be geared mainly towards:

(a) The building of food stocks on all the Islands to cushion off food shortages caused by more or less periodic droughts.

(b) The organization and improvement of agriculture and animal husbandry.

(c) Exploitation of underground water.

(d) Research into non-conventional forms of energy, ie, solar and wind.

(e) Transport and communications services.

(f) The development of primary and secondary education and the eradication of illiteracy.

(g) The award of study scholarships for the training of specialists necessary for the general development of the country; the improvement of public health and child protection.

(h) The absolute necessity for financial aid to cushion off the budget deficit and to build, through economic planning, a basis for economic and social development.

H - CAMEROON

Extent of the drought and other natural disasters

123. Despite the improvement in the rainfall situation, the Northern Province (approximately 1,600,000 inhabitants) which was drought stricken, is not secure from famine. In fact it has become the centre of other natural disasters:-

(a) Increasing invasion of rats which destory the standing crops, harvests, stored food grains and saplings planted in reafforestation areas.

(b) Sudden invasion of granivorous birds and locusts which destroy food crops.

124. The percentage of crop losses caused by diseases and insect pests vary from 15 to 50%.

125. The losses of livestock is as follows:

Oxen	55,560	heads
Sheep	26,573	"
Goats'	20,297	"
Horses	332	"
Donkeys	836	"

OR a total loss of US $7,329,650

Measures undertaken

126. Since 1971, a drought control programme has been set up which deals with the following :-

(a) Food aid to those who have been affected, through the establishment of an emergency fund;

(b) Village water campaign and subterranean water project;

(c) Tree planting campaigns;

(d) Construction of dams to harness surface water;

(e) Construction of the dam on the Benoue at Lagdo;

(f) Development of cultivation areas in North-east and South-east Benoue;

(g) Development of rice cultivation through the SEMRY project;

(h) Development of the MIDEVIV; and

(i) Development of irrigated areas in the Logone and Cheri areas.

Assistance received, needs and requirements

127. U.S.A. and U.S.S.R. Governments have granted to the drought victims one thousand tons of enriched maize flour, and one thousand tons of maize grain.

128. The annual needs in grain (staple food) for the entire Northern Province amounts to 320,000 tons. Taking into account the food grain production for the past few years, the deficit may be calculated as follows:

Year	Production in tons	Consumption in tons	Deficit in tons	Value of Deficit in US $
1971	307,000	320,000	13,000	3,250,000
1972	295,000	"	25,000	6,250,000
1973	265,000	"	57,000	14,250,000
1974	357,000	"		
1975	450,000	"		

129. The draft budget for the control of locusts, granivorous birds and rats in the Northern Province is as follows:

Draft Budget for the Control of Locusts, Granivorous birds and Rats in the Northern Province

Description	Quantity or Number	U.P.	Value
1) Treatment Equipment			
Machinery:			
a) Pulverizers	2,000	15,000	30,000,000
b) Spraying machines	1,000	70,000	70,000,000
c) Platz 2,000 equipment with 6 UNIMOGS	7	8,000,000	56,000,000
Pesticides			
- HCH20 or 50 in dissoluble powder			20,000,000
- rat poison and other insecticides			40,000,000
2) Rolling Stock:			
Lorries	8	3,000,000	24,000,000
Long chassis Land-Rover	10	2,500,000	25,000,000
Insurance			10,000,000
Sleeping Equipment	60		4,000,000

Description	Quantity or Number	U.P.	Value
3) Staff			
Prospectors and drivers			10,000,000
Miscellaneous Prospection Equipment			2,000,000
4) Operation and Miscellaneous Allowances			
a) Vehicles and machinery fuel and spare parts			30,000,000
b) Various Allowances and Missions			
Officials, prospectors and drivers			6,000,000
			327,000,000

I - MALI

Extent of the drought and other natural disasters

130. Mali has experienced seven consecutive years of drought; it was strongly hit in 1972 and 1973 by an exceptional severe drought which destroyed a large part of grain harvests and decimated an important portion of livestock.

131. June - September rains are characterized by sparse, hasty downpours with insufficient amounts and uneven distribution coinciding very often with the critical period of plant growth.

132. The Sahelian Zone, chiefly associated with the production of food crops (millet, sorghum and maize) and cattle-rearing (pasture) were the most hit by this drought. The insufficient total seasonal rainfall has in addition seriously decreased the production of cash crops (cotton and groundnuts).

133. The flooding of the country's major rivers is characterized by seepage caused by insufficient downpours both at the upper and lower parts of the rivers. As a result the rice fields experienced very inadequate floods for raising the rice crop.

134. A reduction of more than 50% of the flooded surface by the Niger basin and Bari means not only a big drop in fishing but also a serious pledge on the future fishing production.

135. The amount and distribution of rainfall resulted in an inadequate amount of water in the subterranean level. As a result it was necessary to start digging many wells so as to secure water for human beings and livestock. The water for livestock was insufficient resulting in transhumance as a means for the survival of livestock.

136. The socio-economic consequences brought about by this situation were tragic not only at the level of peasant farmers, pastoralists and fishermen who are deprived of their incomes and individual food-stocks, but also at the State level whose budget was also affected due to the inability of farmers, fishermen etc. to pay the government taxes.

137. Coupled with the inadequecy of 1974/75 rains other natural disasters appeared. These were locusts which ravaged plants and trees, and multitudes of rats never known in human history.

138. The most seriously affected parts of the country are:

The whole 6th region of Mali - Degree of casualty 50% to 100%
The whole 5th region of Mali - Degree of casualty 40% to 75%
The 4th region of Mali - Degree of casualty 25% to 75%
The 2nd region of Mali - Degree of casualty 20% to 80%
The 1st region of Mali - Degree of casualty 30% to 80%

Only the 3rd region was less struck - 10% to 40% casualty.

139. The effect on crops varied between 0 to 50% of the normal harvest.

140. The quantity of crop produce destroyed is:

400 - 600,000 tons of cereals, 12,000 tons of cotton and 2,000 tons of groundnuts.

141. The decline of harvest was 350 to 450,000 tons of cereals as compared to the normal harvest.

142. It is estimated that 400,000 beef and a similar figure for sheep and goats died due to the drought.

Measures undertaken

143. Besides the emergency help-food and medicines - to the disaster stricken populations, certain measures were taken under the direction of the CILSS (Inter-State Committee for Drought Control in the Sahel) adopted in September 1973, at the time of the Summit meeting of the Heads of State of the following countries: Upper Volta, Mali, Mauritania, Niger, Senegal and Chad. The measures are:

a) pastoral hydraulic and village projects
b) intensification programmes of food crops
c) project for the establishment of centres for seed multiplication, and drought resistant seeds
d) sanitary protection of livestock
e) revival of livestock struck by the drought
f) territorial reafforestation
g) arrangements for interior and inter-regional routes
h) realization of large hydroulic works on the major water-ways of the country.

144. The survival of the seriously drought hit population was assured because of the emergency relief services in terms of food aid and medicines which arrived in good time.

145. The projects for pasture water and village water were satisfactorily launched in the seriously hit zones.

Other steps to be undertaken for combatting drought are awaiting the financial sources.

Needs and requirements

146. Despite the good will of the donors, the aid received up-to-now is insufficient to combat drought.

J - NIGER

Extent of the drought and other natural disasters

147. The lack of rainfall coupled with the damage caused by the granivorous animals (e.g. rats) helped accentuate the food deficit in 1975. Despite the promises made by friendly countries to supply an estimated total of 120,000 tons, which have not yet been received in full, the effect of the drought is still being felt, especially at this period of the growth of plants when the activities in the fields are at a peak.

148. The amount of crop, harvests in 1975 were:

Millet	580,000 tons
Sorghum	250,000 "
Millet + Sorghum	830,000 "
Cow peas	220,000 "
Groundnuts	40,000 "

The areas under millet diminished (on account of drought and jerboas) whereas those under sorghum and cow peas increased.

149. The situation of crop harvest was:

Millet and sorghum	- average for 1966 to 1970	=	1,150,000 tons
	- 1975 production	=	830,000 "
	- Deficit	=	320,000 tons
Cow peas	- in 1975 (with increase in surface area)	=	320,000 tons
	- 1974 production	=	130,000 "
	- Excess (increased surface area)	=	90,000 tons
Groundnuts	- normal annual production	=	260,000 tons
	- 1975 production (affected by rosette disease)	=	40,000 "
	- Deficit	=	220,000 tons

150. Because of the plant lice which is the carrier for the rosette disease, no groundnut crop was harvested over an area of 300,000 hectares.

151. 1,200,000 hectares of millet were affected by the drought and granivorous animals as well as 500,000 hectares of sorghum.

152. The population affected by the drought were 1,200,000.

153. The number of inhabitants to be fed per district is as follows:-

District of Niamey	13,166
" " Dosso	80,588
" " Maradi	215,582
" " Tahoua	486,593
" " Zindu	221,491
" " Diffa	37,367
TOTAL	1,054,787

154. The livestock that was lost because of the drought was 2,400,000 heads.

155. The value of the crops destroyed is as follows:

Millet-Sorghum	: 320,000 x 25,000	= 8 milliard CFA
Groundnuts	: 220,000 x 40,000	= 8,800 million CFA
Total	: 16.8 milliard CFA	or US $60 million

156. Losses in export income:-

(a) (i) Normal annual sale of groundnuts (in the shell):-

110,000 x 6,500 = 103,500 tons

103,500 x 40,000 = 4,140 million Frs.

(ii) Groundnuts costing 5 milliard following processing in the oil and after export taxes.

(b) Export of food grains in normal year is:

25,000 Frs. x 100,000 = 2.5 milliard CFA Frs.

Losses suffered by peasants = 3 milliard CFA Frs.

Total losses : 6,640 milliard CFA Frs. or approximately US $25 million

Measures undertaken

157. The measures undertaken are as follows:-

(a) Development of general extension services and of production projects for dry farming crops;

(b) Increasing the area under irrigation through hydro-agricultural development;

(c) Protection and restoration of livestock;

(d) Control of desertification and deforestation.

158. For several years now there has been the "artificial rain" operation with the 'sowing of clouds by two planes to bring about rain in the drought stricken areas.

159. At the national level, efforts are being made on a large scale to control the granivorous animals (rodents, jerboas, locust, millet-burrowing caterpillars, plant lice transmitters of groundnut rosette disease and millet-eating birds) which could affect the harvest.

Assistance received

160. For 1975, the food deficit was 200,000 tons. Following the Governments' appeal many friendly countries and International Organizations responded favourably as regards food aid to Niger. Approximately 120,000 tons of food supplies have been granted to Niger.

161. Adequate facilities have been set up to dispatch such food supplies to the areas where they are to be consumed.

External aid in 1975

Source	Quantity (tons)	Nature	Remarks
USAID	26,660	Sorghum	Nil
Canada	2,951	Sorghum	Nil
EEC	10,000	Sorghum	Nil
China	5,000	Rice	Whole
USSR	2,470	Rice	Fragmented
Sweden	3,500	Wheat	Nil
OPVN	450	Millet	Swiss donation
Others	5,000	-	The 5,000 tons represent the various donations in small quantities from Nigeria, New Zealand, Philanthropic Organizations and WFP
Total	56,031		

162. Within the same framework of action, other friendly countries and International Bodies donated to Niger, vehicles and spare parts to enable it distribute the food supplies.

(a) Assistance received in the form of vehicles

Source	Nature
O.S.	28 V. TT
UNDP	14 V. TT
Federal Republic of Germany	3 semi-trailers + 5 V. TT
Canada	3 semi-trailers
USAID	7 semi-trailers

(b) Spare parts

Spare parts	Nature
Canada	20,310,000 Frs. CFA
OSRO	7,000,000 " "
USAID	7,400,000 " "
Federal Republic of Germany	not estimated
Belgium	not estimated
UNEO	112,000,000 Frs. CFA

163. Libya and China granted to Niger, under the priority programme, US $500,000 and 16,991,400 Frs. CFA respectively.

K - SENEGAL

Extent of the drought

164. For nearly eight years, Senegal has been experiencing an exceptional period of drought both by its duration and intensity. This situation sometimes led to drastic consequences. 1972 was a bad year for agricultural production (food and cash crops) and therefore for the economy as a whole.

Measures undertaken and assistance received

165. An elaborate programme designed for a quick recovery and based on water control was drawn. The projects drawn concern (agricultural, village, mixed pastoral and village) hydraulics, animal health and nature protection.

I - Hydraulics

(a) Agricultural hydraulics

1. Manantali Dam

Within the framework of the OMUS (Senegal River Development Organization), the Manantali Dam estimated at a cost of 18 billion CFA Francs will lead to a potential of 10 billion cubic meters reservoir with a steady flow of 300 m^3/S at Babel. Besides, it will be possible to cultivate an irrigated area of 300,000 hectares, 200,000 of these being in Senegal, to produce 800 million kilowatt hour of electric power to develop the mining industry (phosphate, iron, copper) and to improve the navigability of the river.

2. Diama Dam

The construction of the Diama Dam estimated at a cost of about 10.5 million CFA francs should prevent salt water from pouring into the valley, ensure the irrigation of an area of 60,000 hectares, a better filling of lake Giers and better conditions of navigability.

3. Saed Area

This area was intended for rice growing through controlled flooding. The limits of this rudimentary system were quickly brought to light. In the case of low floods, the cultivated area was reduced to a few hundred hectares. Development has consequently been intensified several years ago with the passage from a primary to an improved

secondry, and finally to a tertiary network. Pumping stations have been built thus enabling, on the one hand, rice growing to lift to raise the crop without waiting for the late rains, and on the other hand, to keep the rice fields flooded.

4. Guédé Area

In 1974, rice was grown on 500 hectares that produced a total of 2,000 metric tons of paddy. From December, a second crop (out of season crop) was produced on 250 hectares. It is estimated that 1,000 hectares can be cultivated in this area through a water control project financed in part by Senegal (agricultural programme law).

5. Dagana Area

The area of 3,200 hectares located in the Dagana basin is to be financed by the following loans: IBRD/IDA (2.314 million CFA francs), FAC--Arid and Co-operation Fund (61.890 million CFA francs). The Senegalese counterpart amounts to 1,560,000 CFA francs. In this area rice is grown on about 1,300 hectares of low lands. These correspond to the "hollade" soils. The rest of the area constituted by the "fonde" soils on higher lands, is reserved for mixed farming and the production of fodder crops. Tomato is also grown at the tomato concentrate factory built in the area.

6. Nianga Area

This project is financed by a grant-in-aid of the European Development Fund (EEC), amounting to 1.671 million CFA francs. The area covers 18,000 hectares out of which 9 to 10,000 can be cultivated in addition to the initial area of 810 hectares. Rice is grown in about half the "hollade" area. As in the Dagana area, the "fonde" soils are used for mixed farming and the cultivation of fodder crops. The EDF (EEC) is requested to provide 1.5 million CFA francs in order to finance some 1,400 hectares.

7. Matam Area

A development project in this area covering 1,000 hectares has been planned by SOGREAH, and is financed by FAO/UNDP. This forms part of a larger area spreading over about 10,000 hectares. The implementation of this project depends on the financing of the FAC and USAID, in addition to an endowment of 720 million CFA francs to be provided by the 1975/76 national capital budget (agricultural programme law).

8. The OAV Basins

These basins which were poorly conceived from the start fell into a considerable disrepair and can no longer be used. They were taken over and improved by the loan consented by the Chinese Republic and the intervention of the Chinese experts; 4,000 hectares were quickly recovered.

9. Sedhion rice growing project in the middle Casamance

This project is similar to the previous one; its development started in 1970, as a result of a loan granted by the Caisse Centrale de Cooperation Economique (Central Fund for Economic Co-operation). An amount of 6,500,000 dollars, was added to this loan, by the IBRD/IDA and a national counterpart of 2,500,000. The project is being implemented and comprises a second phase (PRS II) to be financed by IBRD and CCCE. The project will be under the direction of Senegalese technicians with a technical assistance from the INSTRUPA Corporation of the Federal Republic of Germany. The average yields is in the region of 3,500 kg./hectare for a total production of 20,000 metric tons on an area of 5,700 hectares during the 1974/75 cropping season.

10. Rice growing development operation in Casamance maritime

This operation was directed by the Dutch Corporation ILACO and financed by the EDF (EEC). Originally, it aimed at the creation of rice growing polders in the mangrove area. Since 1969, it has been engaged in extension work and in the improvement of traditional rice fields, particularly of the soft water rice fields which are less risky. However, in some salt water rice growing areas, the construction of small dams (Niassa and Guidel), the design and use of which are financed by national and ABD funds, deviated the upward movement of the sea water and had stopped the soft water from upstream. The result was a considerable improvement of the cropping conditions.

11. The projects of the Lower Saloum

Originally the lower Saloum project made provision for tomato growing on an industrial scale and vegetable gardening in an area of 600 hectares, and for rice growing on some 200 hectares in the valleys best provided with soft water on the basis of the 1967 inventory.

The Federal Republic of Germany had sent a bureau of experts (from February to May 1973); this mission gave a particular attention to Néma valley. It was proposed to concentrate the action of development in this valley thus making use of the available underground water. The isolation of the Medina Djikoyea valley was however an obstacle to the latter's development.

The same project has been examined by the EDF (EEC) which requested its appraisal and proposed the development of the valleys covering an area of 400 hectares with a three year previous experimentation.

12. The Bao-Bolon project

This project is designed to cover, in the long run, rice growing on 2,500 hectares, and the cultivation of tomato on an industrial scale in an area covering 430 hectares. Cultivation will be carried out on the salt land; it seems that farmers are reluctant despite the fact that good results were obtained with crops produced under the same conditions. The development of a demonstration area (to convince the farmers as seeing is believing) would necessitate a loan of 14 million CFA francs.

b - Village and mixed hydraulics

In the fourth plan of economic and social development, provision has been made for important programmes concerning well drilling. These village or mixed stock breeding and villages programmes are particularly designed for the poorest regions mostly affected by the drought. The number of permanent water supply points must be increased; the existing ones, many of which are dried up must be deepened and repaired. To achieve this, a foreign aid amounting to about 5 billion dollars was made available.

(1) Village hydraulics

Twenty-two drillings and 132 wells, under the State Supervision, were financed by the EDF (EEC) for an amount of about 1.1 billion CFA francs. They are distributed as follows: Thies, Diourbel, Senegal Oriental, Fleuve and Sine Saloum.

(2) Stock breeding and village hydraulics

Canada was to finance a project of 10 equipped bore-holes, 45 drillings and 250 wells for an amount of 2320 million in the regions of Diourbel, Fleuve, Senegal Oriental and Sine Saloum.

Financing of 14 drillings and 50 wells by the Federal Republic of Germany for an amount of 500 million in the regions of Diourbel, Fleuve and Eastern Senegal. Anticipated financing by Saudi Arabia of 15 drillings and 30 wells for an amount of 400 million in the regions of Diourbel, Fleuve, Eastern Senegal and Sine Saloum.

Well brigades

As a result of the obsolete equipment and the scanty amount allotted for equipment and operation, these brigades stopped being operational several years ago. They could no longer, as requested by the emergency programme, deepen the village wells. The result was a complete renovation of the material structure after a detailed study; the loan for the study was obtained from UNDP (500,000 dollars), UNICEF (120,000 dollars) and IBRD/AID (286 million CFA francs).

Surface water "hill-side lakes"

Besides the scanty rainfall during the drought period, a major inconvenience is the poor distribution of the rain in time and space with the result that a good use cannot often be made of an abundant rainfall.

In spite of the scanty rainfall, in Senegal, which fills up rivers and rice fields, pools are formed in low land areas with a more or less limited duration according to the volume of the water stored and the intensity of the evaporation.

Water storage can be increased by developing and protecting natural sites where rain water can be stored by creating artificial reservoirs, by developing natural basins, by systematizing and generalizing the construction of small dams on streams and thin trickles of water and by creating hill-side lakes.

The aim of the Senegalese Government is to favour the storage of water in suitable areas, to prevent people from having access to it, to lose the minimum amount through evaporation - through the growing of tree curtains. This water will gradually be used for the livestock and crops.

Project of submersible dams

In Eastern Senegal there is a branch channel of the river crossing or skirting a village. This branch channel drains during the rainy season large volumes of running rain water towards other more important valleys, and then towards rivers Gambia and Falami.

Such water courses are intermittent, they swell in a record time after a heavy shower, and often dry up completely if there happens to be a great interval between two rains. By building submersible dams accross these water ways, at the level of the villages where important crops are produced, large water reserves could be constituted during and after the rainy season. The ideas of submersible dam projects have already given birth to some ideas of development projects. The aim of these projects is to promote the development of village co-operative gardens after the construction of submersible dams.

II - Animal health

(a) Operation livestock

The consequence of the evil effects of the drought is the least resistence of the livestock, this situation exposed the latter to diseases, the most deadly of them medically and economically being the rinderpest and peripneumonia.

If we take into account the movements of the livestock from one country to another in search of water and pasture land, movements which are moreover difficult to check, and the contagiousness of these two diseases, it will be noticed that only a combined mass action may prove effective. The countries concerned agreed therefore to lead a joint campaign against these two diseases within the framework of the CILSS, encouraged by the result obtained from the first joint campaign against the rinderpest.

A mission of FAO experts and consultants was dispatched by the CILSS to the countries concerned with the project.

Senegal, during the three year control, provided an amount of 771,000,000 CFA francs covering staff, investment and operation charges. For the same period, the foreign aid granted amounted to 161,680,260 CFA francs evenly divided into staff, equipment and operation charges.

(b) Operation rescue of calves

The massive movements of the herd southward in search of a better fodder have only been beneficial to the cattle. The large amount of cattle feed and "licking stores", distributed by the cattle rescue operation, led to a considerable fall in the rate of mortality due to starvation. The consequence of this unusual transhumance was unfortunately a massive infestation by parasites among the calves in particular. Every measure taken to renew the cattle should necessarily deal gradually with the young animals which must be given the greatest chance to survive. This involves a correct and regular feeding as well as a systematic elimination of parasites. This constitutes operation rescue of calves.

The project is financed by EDF (ECC) for an amount of 100 million CFA francs and comprises a massive elimination of the major internal parasitosis of the calves: gastro-intestinal strongylosis, diotomatosis and coccidiosis. The ECC channelled the specific products against the parasites, technical intervention, equipment, responsibility for the operation of the team and for administering the products; this allowed the treatment of 450,000 young animals.

An operation such as this is very important since the cattle in Senegal which numbered about 270,000 heads before the catastrophic rainy season was reduced by 20%.

The results of the operation rescue of calves combined with a better control of the herd should lead to renewal of the livestock within a reasonable duration of time.

(c) Operation Survival of Cattle

The Government first decided to finance the operation up to 250 million CFA francs.

The Federal Republic of Germany offered 400,000 doses of "berenil" a product of very great effectiveness against trypanosomiasis together with the necessary equipments for injection.

The EDF (EEC) signed a convention with the Senegalese Government so as to provide an amount of 237,000,000 CFA francs.

FAO was allotting a first instalment of 250,000 dollars for the purchase of vehicles, spare parts and cattle-feed. The second instalment of an amount of 185,000 dollars is intended to finance the purchase of 900 metric tons of a "feed-starter" for calves.

An amount of 44,200,000 francs was allotted by the US-AID for this same operation.

From its own sources, Senegal succeeded in producing 17,000 metric tons of fodder crops which were transported and distributed to the livestock. This plan reduced the number of dead animals, which in itself is not negligible.

(d) Operation fodder crops

The production of fodder crops has been encouraged for the past seven years. This concerns every region of the country with the exception of "Silo - pastoral" region of Diourbel where hay-making prevails.

There is a seed growing and exhibition centre at Mboro, the purposes being the following:

- to produce an adequate quantity of seeds for the country's needs;
- to show the rational way in which sorghum and other plants can be grown for fodder (under irrigation or rainfall) so as to have several cuttings a year;
- to attempt to feed animals in sheds for meat, milk and dung production;
- to constitute fodder reserves in the form of silage;
- to make a practical study of the major local fodder plants (grass and leguminous plants).

Operation hay making

This operation was designed in 1961 for teaching purposes. The aim was to make the stock-breeders, particularly those in the Silo - pastoral region conversant with the practice of fodder preservation techniques from the natural pasture land.

In fact, a quantity of grass clearly above the needs of the live-stock is produced during the three rainy months of the year. This surplus is mowed, conditioned and preserved until the pre-harvest shortage. It is later reserved for the use of the most stricken animals, young calves and draft animals.

This operation plays a decisive social role by making the shepherd settle down. It is financed by the EDF (EEC).

III Nature protection

Very important programmes were drown with a view to protecting nature. They include bush fire control and the protection of forests: the 3,600 kilometer fire-guard and park of 15 unimogs will be respectively increased to 20,000 kilometers and 80 units.

An additional equipment comprising regional maintenance units of fire-guards and separate control equipment will be purchased for a value of 250 million with the help of Canada.

As regards reafforestation, the short and medium term programmes to be implemented (4th and 5th plan in part) involve an area of 70,000 hectares. This should be realized gradually by taking much into consideration the unreliable climatic conditions of the Sahel area.

Much of the efforts to be produced will be concentrated on the northern half of the country where an attempt is being made in the whole area by the six countries particularly affected by the drought to prevent the desert from expanding and gaining ground; thus the regions of Diourbel and the Fleuve will be concerned with 34,000 hectares.

L - MADAGASCAR

Extent of the drought

166. The mid-west region was the hardest hit by drought which raged during the months of December 1975 and January 1976, coinciding with the raising of crop nurseries and the transplanting period of seedlings.

Rainfall

167.

	FIANARANTSOA		IHOSY	
	No. of rainy days	Amount in m.m.	No. of rainy days	Amount in m.m.
December 1974	26	254.1	16	176.0
January 1975	21	217.1	12	209.3
TOTAL (A)	47	471.2	28	385.3
December 1975	22	179.4	14	259.9
January 1976	22	139.0	1	17.4
TOTAL (B)	44	318.4	15	277.3
Difference (A - B)	3	155.8	13	108.0

Areas hit by the drought

168.

Sub-districts Sub-Prefectures)	Area Cultivated 74/75 (ha)	Harvested Area 75/76 (ha)	Affected Area 74/75 (ha)	Area hit in % - comparison 1974/75
Fianarantsoa	28,600	26,640	1,960	6.8
Ihosy	10,850	4,820	6,030	55.5
Ambalavao	20,400	8,160	12,240	60.0
Ikalamavony	10,450	7,700	2,750	26.3
Midongy Du Sud	6,400	5,550	0,850	13.2
Ivohibe	5,700	4,510	1,190	20.8
TOTAL	82,400	57,380	25,020	30.3

169. The following additional consequences were due to drought:

a) the retardation of rice transplants
b) the drying up of rice nurseries already transplanted
e) the abandonment of rice fields due to water shortage
d) prolonged flowering of plants.

Fall in Production

170.

	Production 74/75 (tons)	Production 75/76 (tons)	Fall in Production 74/75(tons)	Fall in Value in thousands of FMG
Fianarantsoa	74,360	52,280	22,080	662,400
Ihosy	12,225	5,820	6,405	192,150
Ambalavoa	61,000	13,920	47,080	1,412,400
Ikalamavony	20,900	14,175	6,725	201,750
Midongy Du Sud	7,680	5,080	2,600	78,000
Ivohibe	8,000	6,765	1,235	37.050
TOTAL	184,165	98,040	86,125	2,583,750

1/ Price of one ton of paddy is 30,000 FMG.

171. The performance of some of the areas was satisfactory for the following reasons:-

i The agricultural hydraulic networks of these areas are well maintained and the use of available water is rational.

ii The fields are well irrigated.

iii Fertilizers and pesticides are being used, despite the present rise in prices.

iv The agricultural calender for the different operations was adhered to.

172. The followings should be materialized to avoid seeing the fall in production, as experienced this year:

a) Restore all the old agricultural hydraulic networks of the province which are more efficient.

b) Expand the irrigated areas since only by doing so the area can be sheltered from climatic vagaries and the production will be increased at the same time. This will require new agricultural hydraulic management.

c) Increase the agricultural implements (tractors, ploughs, harrows etc.) so as to abide by the agricultural calender which was studied and recommended for the maximum utilization of the little rain the province receives (e.g. cultivation in time). The use of agricultural implements augments the areas cultivated.

d) Increase the number of and improve the training of the agricultural cadres.

e) Put at the disposal of the peasants enough quantities of fertilizers and pesticides.

Estimated harvests - Tulear District (Prefecture) - 1975/76

173.

Sub-district (Sub-prefecture)	Paddy		Groundnuts		Cotton		Peas		Maize		Haricot B.		Cassava	
	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons
Tulear	1700	1300	950	475	3903	3518			5500	3300			2500	5000
Morombe	5500	4490	600	360	-	-			3300	1650			3200	8000
Beroroha	1200	890	-	-	-	-			-	-			200	400
South Ankazoabo	1600	1170	1500	1050	269	202			700	490			800	2200
Sakaraha	2500	1700	1417	1282	110	100			400	200			2100	5250
South Beticky	4820	4686	1300	780	-	-			1700	765			3185	9555
West Ampanihy	1000	350	975	292	-	-			800	240			2800	5040
Total estimate	P-18320 S=	P-14586 S=	6742	4239	P-4288 S=	P-3820 S=			12400	6645			14785	35445
1975	P=21541 S= 450	P=26195 S= 1575	5772	5573	P=4131 S=2000	P=3815 S=5886	17879	16139	12415	11054	1536	1710	14530	77210
1974	23128	34335	6400	4880	5930	9650	16330	17725	8900	8160	1240	1240	14900	59000

P = Paysannat
S = Samangoky
} Sub-districts

174. (i) Rice

A drop of about 10% in cultivated area is noted. This situation was aggravated by the progressive drop in yields during the last three years. 1.4 (tons/ha) in 1974, 1.2 in 1975 and 0.8 in 1976. The country experienced drought in 1975 and especially in 1976; as a result many hectares were abandoned or not transplanted because the transplants were scorched. This year's production will be about 67% of the normal yearly production.

(ii) Cotton

(Samangoky not included). The area where seeds were sown will be completely looked after till harvest time. Apart from some drought effect, the agriculture calender was generally adhered to. The out put would be less by 5% (due to lack of fertilizers and pesticides).

(iii) Groundnuts

After a slight rise in 1975 yields, production will again fall this year. The drop in out-put is estimated at about 40%.

(iv) Peas

Again at the seedling stage it is impossible to make any estimation. Also for the other crops one notes a fall in the total area cultivated as well as in the yields, in the range of 30% which are caused by the drought, insufficiency of agricultural materials, lack of fertilizers and lack of processing products.

Estimated harvests - 1975/76 - Morondava district (Prefecture)

175.

Sub-district (Sub-prefecture)	Rice		Peas		Groundnuts		Cotton		Maize		Harricot Beans		Cassava		Tobacco	
	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons
Mahabo	12500	10000	150	100	90	60	1000	1000	800	1200	-	-	350	1750	220	165
Morondava	1000	1000	400	320	800	560	200	180	200	200	-	-	100	600	-	-
Manja	2180	4360	3000	3000	940	750	-	-	1200	1200	60	60	2300	8050	-	-
Niandrivazo	7100	7100	-	-	200	160	2	2	80	60	180	180	300	2400	-	-
Belo/Tsiribihina	2000	30000	200	200	140	100	-	-	450	500	900	1300	300	900	400	400
Total estimates 1976	24780	52460	3750	3620	2170	1630	1202	1182	2730	3160	1140	1530	3400	13700	620	565
1975	39685	53750	6950	6800	2078	1695	1289	2340	3665	1862	1105	1071	3293	17040	-	-
1974	26100	38927	7677	8325	5357	5030	956	1909	2994	4558	1195	2114	4580	15490	-	-

(a) Rice

Despite the decrease in the area cultivated (rice fields were scorched by drought and thus abandoned), rice production had been the highest in the last three years. It is in fact an average yield of a normal year. The minimum yield recorded is 0.8 T. (Mahabo) and the maximum 2 T. (Manja).

(b) Peas

The cultivated area decreased by half not only due to drought, but also due to transforming this area into rice-growing (at Manja and Morondava, a drop of 50%). The yield obtained in this area is actually equivalent to an average harvest.

(c) Cotton

The expected drop will be about 50%. It is not only due to climatic hazards, but also due to insufficient fertilizers, pesticides.

(d) Groundnuts

Groundnut was the most affected crop by the drought. Despite a slight increase in cultivated area (brought about by the use of agricultural implements) as compared to the past year, the 1974 production level has not been reached. The out-put dropped by 20% as compared to the preceeding years and by 30% - 35% as compared to the normal annual yields.

For the other crops the estimates are worse. Only harricot bean seems to have overcome the climatic hazards.

Estimate harvests - 1975/76 - Fort Dauphin district (Prefecture)

Sub-district (Sub-prefecture)	Rice		Groundnuts		Cassava		Potatoes		Sorghum		Maize		Haricot Beans		Coffee		Caster Bean	
	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons	Ha	Tons
Fort-Dauphin	1500	2025	80	23	3000	30000	150	160			60	20	150	90	850	250		
Ranomafana	270	232	20	15	1000	5000	45	180			25	20	-	-	1650	400		
South Amboassary	500	125	80	40	100	1000	250	1000			200	160						
Tsivory	1320	2480	15	10	450	4500	240	240	16	9	300	240	16	13				
Betroka	5000	8125	300	940	3000	15000	500	1500			800	560						
Ambovombe			1672	850														
Tsihombe			700	300	1495	3000	2250	4500	1500	900	2250	1350	200	160				
Beloha			300	240														
Bekily			5250	2500														
Total estimate 1976			8417	4920											2500	650		
1975	17430	36250	8634	8875	30230	176820	24975	115395	3580	25820	31630	26360	620	350	1850	850	5450	1400
1974	16150	29450	4000	1600	10140	48170			1800	820	8030	5200	749	345	1800	780	5100	1200

Both a decrease in area cultivated with groundnuts and the average yield per hectare (a drop of 30%) are noted.

The Cyclonic Season in Madagascar 1975/76
Extent of the Cyclones (three cyclones)

177. On January 10th Clotide swept everything down on the north west coast at a speed of 200 kms. an hour for four to five days. Scarcely one week afterward when the Province of Majunga had not yet time to recover from the passage of Clotilde, Danae swooped on that same Province on January 21st, then let loose its rage down to the North East coast. After another two months Gladys started which struck the North East regions reducing the economy of the district (prefecture) of Antalaha to nothing.

Damages sustained by the prefecture of Antalaha

178. The following casualties were recorded:

Dead	10
Wounded (severely).....	12
Homeless (for 30 days)..	8,275

179. The following is indicative for the impact of Danae and Gladys on the population:

- Losses in agriculture and stock breeding assessed at FMG 2,600,000,000 or $ 12 million.
- 4,450 houses destroyed and 17,650 houses damaged, assessed at FMG 2,850,000,000 or $15 million.
- The town of Sambava was completely blown down; the town of Andapa was 90% destroyed.
- Infrastructure did not suffer less; their repairing will necessitate a credit of about FMG 1 billion or $4 million.

Total assessment of the damages

Nature of Damages	Prefectures (Districts)				Total
	Majunga	Antsohihy	Diego-Suarez	Antalaha	
1 Human Victims					
-- Dead	3	1	2	10	[illegible]
- Wounded	5	9	-	12	[illegible]
- Homeless	400	120	55	8,275	[illegible]
2 Private Property	755,000	57,500	55,000	2,850,000	[illegible]
3 Public Buildings	125,000	220,000	22,000	865,000	[illegible]
4 Infrastructures					
4.1 roads	30,000	530,000	-	835,000	[illegible]
4.2 bridges	70,000	45,000	-	59,000	[illegible]
4.3 embankments	20,000	2,000	-	2,750	[illegible]
4.4 ferries	2,500	-	-	5,500	[illegible]
4.5 barrages	-	6,000	10,000	12,000	[illegible]
4.6 aerodromes	-	5,000	-	2,000	[illegible]
4.7 ports	40,000	-	-	35,000	[illegible]
4.8 electricity	1,500	2,000	2,000	7,500	[illegible]
5 Agriculture Husbandry					
5.1 agriculture	34,750	147,500	223,400	2,577,100	[illegible]
5.2 husbandry	4,200	10,075	27,725	11,325	[illegible]
6 Other Damages					
fishing equipment	-	-	20,000	-	[illegible]
Summary per Province	1,082,950	1,025,075	360,125	7,262,175	[illegible]

Actual Totals = 9,750,325 Malagasy Francs
approximately 10 billion
Malagasy Francs
(This is about 40 million US Dollar)
which is equivalent to 18 -- 20% of the
Gross National Product (1975)

181. Evaluation of Human casualties and material damages caused by cyclones Danae and Gladys

(1) - Human Casualties

- Dead 10
- Disappeared.....
- Wounded..... 12
- Homeless 3,275

	Number	Values (FMG)
(2) - Private Buildings		
- Destroyed	4,450	935,000,000
- Damaged	17,650	1,915,000,000
(3) - Government Buildings		
- Destroyed	14	470,000,000
- Damaged	36	395,000,000
(4) - Ways of Communications and Infrastructures		
4.1 - Roads (Kms		
- National	35 Km	525,000,000
- Provincial	62 "	310,000,000
4.2 - Bridges		
- on national roads ...	3	15,000,000
- on provincial roads..	22	44,000,000
4.3 Concrete reinforcements		
on national roads	1	1,000,000
on provincial roads..	7	
4.4 - Ferry-boats		
- on national roads	1	2,500,000
- on provincial roads..	2	3,000,000
4.5 - Dam	3	12,000,000
4.6 - Airfields (Vohemar)....	1	2,000,000
4.7 - Harbours	3	35,000,000
4.8 - [illegible] network	-	7,500,000

(5) - Agriculture and Stock-breeding

(5.1 - Agriculture	Cultures Ha	Cultures feet	Stocks (tons)	Values
- Rice	15,200	-	40	990,600,000
- Other food-producing cultivations (maize, cassava).....	3,000	-	-	60,000,000
- Commercial Cultivations				
x Vanilla	-		970	1,455,000,000
x Coffee	-	8,000	-	24,000,000
- Other Cultivations				
x banana	-	7,000	-	17,500,000
x leitchis	-	5,000	-	25,000,000
x mandarine	-	1,000	-	5,000,000
Total =				2,577,000,000

5.2 - Stock Breeding	Number	Total Values
- Bovines	155	3,875,000
- Ovines .....)	300	900,000
- Caprines .....)		
- Porcines	220	5,500,000
- Poultry	1,400	1,050,000
(6) - Other Damages		
Total		11,325,000

- R E C A P I T U L A T I O N -

		Total Values
- Private Buildings	FMG	22,850,000,000
- Government Buildings	"	865,000,000
- Ways of Communications and infrastructures		
x Roads	FMG	835,000,000
x Bridges	"	59,000,000
x Concrete Reinforcements	"	2,750,000
x Ferry-boats	"	5,500,000
x Dams	"	12,000,000
x Airifields	"	2,000,000
x Harbours	"	35,000,000
x Transmitting network	"	7,500,000
- Agriculture and Stock-breeding		
x Agriculture	"	2,577,100,000
x Stock-breeding	"	11,325,000
- Other Damages		
Grand Total =	FMG	7,262,175,000

Assistance received

(a) Medicines

UNDP	2,500 kg.
Austria	20 kg.
Soviet Red Cross	3,000 kg.

(b) Subsidies for fuel requirements for the transportation of Emergency Help

UNDP FMG 2,900,000 ($13,425)

(c) Cash

	FMG	US$
People's Republic of China	17,000,000	68,000
Arab Republic of Egypt	2,000,000	8,000
U. S. A.	1,000,000	4,000
France	1,000,000	4,000
Great Britain	1,285,000	5,140
Japan	1,000,000	4,000
Mauritius	2,500,000	10,000
Vatican	1,000,000	4,000
Assemblée de Dieu-Sweden	357,000	1,428
Mission Adventiste - France	200,000	800
Societe Isamaelienne du Prience Aga Khan	200,000	800
TOTAL	27,542,000	110,168

Action undertaken

182 - (a) Cyclone warnings through:

(i) Broadcasting medium.

(ii) The use of posters - different colours indicating different stages of the cyclones.

b) National Fund Raising Campaign

i) The importance of the damages and losses triggered a movement of national solidarity within the Malagasy people. That movement was confined by organizing a national fund raising campaign which ran up to 30th April 1976.

ii) It was possible to collect FGM65 million or $260,000 through the Campaign.

iii) This amount is insufficient to compensate the volume of national damages undergone by the Northern part of the Island.

Assistance needed

183. Facing such a critical situation, the Government of the Democratic Republic of Madagascar appeals to the OAU Member States as well as the International Organizations to give priority to Malagasy plans for the restoration of the areas struck by the cyclones.

184. The short-term or immediate help requirements are:-

a) 400 tons of rice to feed 7,000 persons for six months until the next harvest.

b) 2 tip-lorries to replace those which were destroyed by the cyclones at Andapa.

c) Reconstruction of 4,000 houses at FMG 300,000 ($. 1,200) in the Prefecture of Antalaha.

d) Renewing the Meteorological equipments of the stations of Sambava, Antalaha and Andapa.

e) The Sons-prefectures (Sub-districts) of Sambava, Antalaha, Andapa and Vohemar have to be provided with new radio transmitting equipments.

GIST OF THE COMMENTS MADE BY THE REPRESENTATIVE OF FAO OF THE UNITED NATIONS, MR. J.V.A. NZHEMIAH, WHILE INTERVENING ON DIFFERENT ITEMS OF THE AGENDA.

The representative of FAO, speaking also from personal experience as former co-ordinator and administrator of the 1973-75 Sahelian Famine Relief operations of the UN system, stressed the importance of the task assigned to the OAU ad hoc Committee on Drought and other Natural Disasters. In his view, the establishment of the Committee reflected the determination of member states of Africa to promote self-help and co-operation among governments to tackle, individually and in co-operation with each other and with concerned members of the UN system, one of the greatest scourages which has afflicted a number of countries in Africa in recent years, causing considerable human suffering. He referred in detail to the responsibility of FAO in overall global food surveillance, the machinery it has developed for the purpose, including an early warning system which had been strengthened in the light of the last world food conference recommendations, the resources at the disposal of the D.G. FAO, amounting to more than forty million dollars per annum for emergency food aid, the role FAO has been playing in co-operation with the World Food Programme in such aid and related matters, and measures that are being taken to help governments to build up food security stocks as an insurance against food emergencies. He assured the Committee of the full co-operation of his organization in its work, recalling that the Standing Agreement between FAO and the OAU called for promotion of such co-operation.

Speaking on the item concerning criteria for allocation from the Emergency Relief Fund set up by the OAU, he indicated

FAO's own experience in dealing with emergency food aid requests. In his view no hard and fast criteria were feasible as the nature and magnitude of emergencies differed from country to country and that several local factors peculiar to each country came into play.

The road criteria, of course, was that the country concerned should have given adequate recognition to the emergency through its own emergency measures and should have asked for international assistance in situations where its own efforts would be inadequate. In preparing a case for a decision the Secretariat naturally gathered relevant data such as the affected area, the numbers of people involved, property, livestock, seed, etc,. destroyed, the food situation in the country, and so on. But the decision on the nature and size of relief in each case was left to the discretion of the D.G. FAO, guided by recommendations made by the Executive Director of WFP and the resources available at the time. In major calamities, such as the Sahel famine, where resources at the D.G.'s disposal were limited to meet the total needs, maximum assistance was given from available resources to meet immediate needs and additional resources were mobilised through appeals to the international community by the D.G. and, in many cases, jointly with the Secretary General of the United Nations. Where the assistance involved went beyond the food and agricultural sector the co-operation of other agencies concerned was enlisted. He thought that the OAU could also follow a flexible procedure and deal with each case in a pragmatic manner.

In his view, OAU could only give token grants, preferably in short term emergencies, because of the small size of its Emergency Relief Fund.

But the fact that such grants have been made would serve as a catalyst to enable organizations with larger sources like FAO/WFP to provide the maximum possible assistance in individual cases. He also referred to the existing procedures under which FAO/WFP have to act on the basis of a request for emergency food aid received direct from the concerned member state and the need for continuing that practice to act with speed and efficiency to alleviate human suffering in emergencies. A report on such aid given was made to the Inter Governmental Committee of the World Food Programme and to the Governing organization of FAO and such reports were thus automatically available to member states.

Referring to item 6 (a) of the agenda, the representative of FAO expressed appreciation for the background document (A HC/DND/1 (IV) provided by the secretariat which contained very useful information about the situation of drought and natural disaster in Africa. He thought, however, that the procedure adopted to collect information by written correspondence with a number of member states had certain limitations to reflect the latest current situation in a country when decisions would have to be taken on emergency aid. He referred to the Early Warning System established by FAO for the purpose which had been strengthened as a result of recommendations made by the last World Food Conference. Under this system, FAO and WFP field officers continuously gathered information on the food situation, crop sowings, planted area, crop production forecasted and relevant information in detail concerning each food deficit country. Such information was collated and analysed at headquarters and refined into a monthly report which was made available to all donor countries in a position to help countries

in need. The document also served to watch developing critical food situations so that whenever a sensitive situation appeared to develop in a country a detailed study was made about the conditions in that country. In that way conditions were facilitated to provide speedy and timely assistance to a country in need. He showed a copy of the latest monthly report dated 29th October 1976 to the Committee and handed in over to the secretariat. He referred to the committee's own mandate to collect relevant data about natural disasters in Africa and said that FAO could assist the Committee by making available the Early Warning System periodical reports to the OAU Secretariat.

In turn, he requested the committee and the OAU to appeal to the member states to provide to the FAO field officers all relevant information regarding worsening food situations which was most important to mobilise aid before the situation affected the welfare of millions of people. He stressed the importance of timely action especially in Africa where transport conditions were so difficult that several months would elapse before a decision taken to mobilise outside resources could be translated into action of delivering the resources at the destination of need. He sincerely hoped that the committee and OAU would call upon member states of Africa to pay serious attention to provide timely information to keep the FAO Early Warning System an efficient and up-to-date instrument in dealing with emergency food situations. He added that any sensitive information supplied would be treated with care and confidentiality.

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Annex VI

STATEMENT BY F. SCHELLER
UNDRO REPRESENTATIVE
AT OAU AD HOC COMMITTEE ON DROUGHT
AND OTHER NATURAL DISASTERS
29 - 30 NOVEMBER 1976
ADDIS ABABA

Mr. Chairman,

UNDRO is one of the youngest and smallest UN organization. It was created in 1971 and became operative in 1972 to be the focal point in the United Nations system for disaster and relief matters. It was started with great hopes and very small means. For some years it operated with a minimal budget and even smaller staff, it has now been strengthened and is reaching a reasonable level in staffing and means.

But it had to function from the start and did perform reasonably well within the constraints imposed by its limitations.

It had two mandates:

1) Co-ordinate relief, mobilize and guide external help.

2) Promote disaster prevention, predisaster planning and preparedness.

In fact the limitation of means affected less the first mandate than the second.

As far as Africa is concerned UNDRO did allocate 35% of the funds made available from the General Assembly to the African continent, and in another of its activity savings due to free transport of relief 48% of the savings were concerning disasters in Africa. Through appeals it also did mobilize about 2 million dollars of assistance to African disaster prone countries including 1.3 millions for drought in Ethiopia.

I should add that UNDRO does not duplicate efforts of others and is collaborating with other parts of the UN system such as UNDP, UNICEF, WFP, FAO, WHO, with donor governments and the main voluntary agencies such as the League of Red Cross.

UNDRO did what it could and I am here to tell you that it intends to continue serving disaster prone countries of this world, but this needs your collaboration as well as the concerned organizations.

Disaster relief is in fact one field of activity where it appears that good intentions do not necessarily create good results. There is a long tale of relief efforts wasted by inadapted supplies, transport failure, administrative lengths and so on.

To be able to play its role, UNDRO needs accurate and speedy information,

1) before disasters on degree of preparedness of countries on local availability of supplies, alimentary customs, transport means etc.

2) during disasters on damages, needs and particularly on responses to needs to avoid overlaps, surplus and deficiencies in the various relief items.

We need this information from all donors but also from the countries affected themselves.

There are practically three sorts of disasters: unexpected (earthquake), recurrent (like yearly floods or cyclonic season) creeping like drought tending sometime to become permanent, we need information from all particularly on the first category but also on others. Let me add that UNDRO is also ready in the limit of its funds to help you prepare yourself and also help you to prevent and mitigate disaster, this being particularly relevant to the second and third category.

UNDRO is ready working in close collaboration with UNDP whose representatives in the field are also ours, with UNICEF, WFP, WHO, FAO, WMO, with voluntary agencies to help you but it cannot work without your collaboration either at OAU inter-governmental level or national level.

THANK YOU, Mr. Chairman

Attachment: Document on UNDRO

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Annex VII

STATEMENT MADE BY THE WMO REPRESENTATIVE
TO THE FOURTH SESSION OF THE OAU AD HOC COMMITTEE
ON DROUGHT AND OTHER NATURAL DISASTERS
ADDIS ABABA, 29 - 30 NOVEMBER 1976

WMO ACTIVITIES RELATED TO DROUGHT AND OTHER NATURAL DISASTERS IN AFRICA

Activities related to drought

The serious impact of the drought in the Sudano-Sahelian zone of West Africa and requests received for help led to a decision in 1973 that the best help that could be given by WMO would be to formulate a programme aimed at ensuring that meteorological and hydrological knowledge would be applied to the best advantage in the medium - and long-term plans for mitigating the effects of drought.

Action commenced in 1973 with the development of a programme designed to accomplish the object outlined above. By the end of 1976 the following have been completed or initiated:

(a) the commencement of WMO/UNDP projects in the CILSS countries aimed at strengthening national meteorological and hydrological services;

(b) the creation through WMO/UNDP/CILSS and bilateral funds-in-trust managed by WMO of a regional centre at Niamey for Training and Applications of Agrometeorology/Operational Hydrology, the training component has already begun and from 1977 operational work is to commence as are several special studies and surveys;

(c) the publication in 1974 of a survey of meteorological and hydrological data available in six Sahelian countries of West Africa;

(d) the publication in early 1977; with UNEP financial assistance of "An evaluation of climate and water resources for development of agriculture in the Sudano-Sahelian Zone of West Africa."

Work is also being carried out, using bilateral assistance, on an agroclimatological survey of the Sudan which will have relevance to the drought problem. There is also the possibility of the extension of the study mentioned in (d) above to areas to the east.

Activities related to other natural disasters

Tropical cyclones are one of the large scale natural disasters of meteorological origin that can adversely affect human life and the economy of many tropical countries. Within the framework of the WMO Tropical Cyclone Project there is a Tropical Cyclone Committee for the South-west Indian Ocean. At its first session in 1973 a technical plan was developed covering observing systems, issue of cyclone bulletine and warnings, climatology, research and training and community preparedness and disaster prevention.

A problem currently under study is how to associate Somalia, the only country in Africa north of the Equator to be affected by tropical cyclones, with an appropriate grouping. Meteorologically such association should logically be with countries affected by storms in the Bay of Bengal and Arabian Sea but there are several practical problems such as communications.

WMO is also associated in the development of networks and techniques for flood forecasting both for national and international rivers in Africa.

Co-operation with OAU

The agreement between WMO and OAU calls, inter alia, for exchange of information and for co-operation in training. WMO participation in the forthcoming OAU Symposium on Drought and Desertification is one example of such co-operation.

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Annex VIII

STATEMENT TO OAU AD HOC COMMITTEE ON DROUGHT AND OTHER NATURAL DISASTERS IN AFRICA 30TH NOVEMBER 1976

Christopher Dunford, Programme Officer, Secretariat of the United Nations Conference on Desertification

Referring solely to the problem of drought, I would like to draw the attention of the meeting to the UN General Assembly resolution of two years ago which decided to initiate concerted international action to combat the spreading of desert conditions, or desertification as it is now called. Specifically the General Assembly called for a United Nations Conference or Desertification to be held from 29 August to 9 September 1977, probably in Nairobi. This Conference is now seen as the principal mechanism for co-ordinating current international activities to combat desertification and for starting new activities which, together with current activities, will hopefully constitute a concerted international programme of action against desertification and for the national social and economic development of drought-prone areas.

The secretariat preparing for the Conference is administratively attached to UNEP because the Secretary-General of the Conference is also the Executive Director of UNEP. Nevertheless, this is not a UNEP Conference; it is a United Nations Conference.

The preparations involve three main activities: First is an assessment of available information on the causes and curse of desertification. To do this the secretariat has arranged for scientific reviews of four components of the problem: climatic change, ecological change, social aspects, and technological aspects. These are now synthesized in an overview document.

In addition UNESCO is preparing, with UNDP financing, case studies of desertification and efforts to combat it in selected areas of the world. These studies, along with similar case studies contributed by governments are being synthesized for inclusion in the overview document. A world map showing the extent of desertification has been prepared by FAO in cooperation with UNESCO and WHO.

The second principal activity preparing for the conference is the formulation of a Plan of Action, which is a set of specific action recommendations to governments and international organizations, based on the information produced by the reviews and case studies. It is also based on the results of feasibility studies for regional co-operation in livestock management, the planting of green belts, the use of underground water resources and the monitoring of desertification. A draft of the Plan has been circulated to all the Member States of the UN and specialized agencies, to the UN bodies and agencies themselves, to other inter-governmental organizations, and to non-governmental consultants and scientific organizations for comments and criticisms. With the responses to this wide circulation, a revised draft has been prepared for the third major activity: a set of four regional preparatory meetings of government-designated experts. These meetings will be the principal occasions for intensive consultations with governments before the Conference itself. The meetings will give government representatives the opportunity to discuss the relevance of the Plan of Action to their countries, to identify regional priorities, and to specifically consider the institutions, technologies, and programmes needed to implement the Plan. On the basis of these discussions, the Plan will be revised again for presentation to the Conference.

The regional meeting for Sub-Saharan Africa will be held in Addis Ababa under the sponsorship of ECA from the 2nd to the 5th of February, 1977. The OAU member states bordering the Mediterranean will be invited to a meeting in Portugal for the Mediterranean basin and Arabian peninsula. It will take place from the 15th to the 18th of February under the joint sponsorship of the ECA, ECWA, and ECE. Invitations are being sent out this week to governments, interested bodies and agencies of the UN, and regional organizations such as the CILSS and the African Development Bank.

Unfortunately, all these activities are perhaps beside the point to this OAU meeting. Desertification is not the same as drought. Desertification is one aspect of the widespread deterioration of ecosystems under the combined pressures of adverse climate and excessive exploitation. It is a type of deterioration of food and fibre producing ecosystems which occurs in areas subject to frequent droughts. But desertification can occur in the absence of drought. Overgrazing is not caused by drought; deforestation is not caused by drought; and salinization of irrigated land is not caused by drought. However, drought can cause surges in the deterioration process. For instance, during good rains there may not be too many cattle per hectare, but when drought comes there are far too many per hectare, and if some cannot be removed to market for sale, whole herds will die of starvation, but only after they have destroyed the vegetation to the point that recovery takes many years of good rain.

Conversely, drought can occur without desertification, if the area is not heavily populated or if people can move quickly from the drought-striken area. Once the rains return the area can soon resume its former productive capacity.

But this is an academic distinction. The fact is that people most often suffer from desertification because population pressure and lack of social and economic development leave them no choice but to overexploit their environment. This same lack of choice renders the people vulnerable to devastation by drought.

As areas subject to desertification are at high risk of disastrous drought, the need for short-term disaster relief and rehabilitation must be anticipated in a Plan of Action to combat desertification or in any development programme for drought-prone areas. If relief operations are carefully planned before the need arises, the operations will not only be more rapid and effective, but the opportunities for social change created by disaster relief situations can be constructively used to promote the programmes recommended in the Plan of Action.

Explicit recognition of the risk of drought should lead to insurance against this risk. Planning for disaster relief involves a set of financial and other measures to insure inhabitants of the areas at risk against loss of crops, livestock, means of livelihood, food supply, housing and even loss of health and life.

The OAU Emergency Relief fund is such an insurance scheme. Each Member State is supposed to pay a premium in order to have access to a much larger sum of money when the need arises. But who wants to buy insurance from a scheme that has only $500,000 in total assets, especially if you have to pay thousands of dollars in premium? I believe this is the reason Member States have been or will have reluctance to pay contributions. Countries will pay more willingly to the Fund if by doing so they get guaranteed access to sufficient and effective emergency relief resources.

My own view, as an obviously young and probably naive student of international organizations, is that the Emergency Relief Fund could be profitably associated with the United Nations Disaster Relief Office (UNDRO). Perhaps disbursement authority could be given to UNDRO, including the political headache of determining when a disaster situation requires disbursement from the Fund. There is ample precedent for this type of arrangement. The advantage is that once a decision has been made to disburse money for a disaster, the other UNDRO activities in appealing for more funds from the major disaster relief donor agencies and in co-ordinating the efforts of these agencies would automatically be set in motion. In short, an initial joint UNDRO-OAU response to a disaster would create a snawballing response which could, in turn, be co-ordinated by UNDRO.

The weakness of this proposal is that UNDRO at the moment is little more than a good idea. But this state of affairs gives OAU Member States a golden opportunity to multiply many times the effects of their Emergency Relief Fund by underwriting and guiding the development of an effective international relief co-ordination organization. If the Member States are truly committed to a disaster insurance scheme, they should use their considerable power in the UN General Assembly and the Economic and Social Council to strengthen UNDRO. They could demonstrate this commitment by entrusting their Emergency Relief Fund to UNDRO. This might be the subject of negotiations between UNDRO and the OAU Secretariat.

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Annex IX

STATEMENT OF THE WHO REPRESENTATIVE AT THE FOURTH SESSION OF THE OAU AD HOC COMMITTEE ON DROUGHT AND OTHER NATURAL DISASTERS IN AFRICA
ADDIS ABABA, 29 - 30 NOVEMBER 1976

I wish to state that WHO shares with the OAU a big concern about the subject of dealing with droughts and other natural disasters in Africa. Our Organization has been seeking to define ways and means by which the predictive mechanisms are developed in the subject and also ways and means by which the capability of the WHO in association with the UN System and other International Organizations may be developed more rapidly to respond to the needs of the situations from the short term and long term point of view

In the relief of suffering and in the assistance programmes, it is clear that, in many cases, to be effective means to give the response of assistance quickly.

As pointed out by the delegates from the FAO about his Organization, the WHO Response likewise is, on the whole, based on information from the Member States of their situation and a request for assistance either to WHO or the International Community based on their assessment of needs. The WHO attempts to amplify this by information sources at the technical level and through all the resources at our command.

The WHO also operates weekly an epidemiological surveillance record which reviews the global health situation as far as epidemics are concerned. This is based on a continuous supply of information from the countries of the world and from available technical sources. It is compiled and sent out weekly to the Member States with rapid telex and telephone services which sends in and sends out information if urgent, health problems in epidemic form are noted.

On the subject matter, in hand, however, it would be far more relevant if Nutritional Surveillance Mechanisms were more adequately developed to include in this epidemic reporting system, information on mal-nutrition, under-nutrition, starvation, and famine. To this end, therefore, our Organization has been mandated and is effectively involved in the establishment of Food and Nutritional Surveillane Systems as a part of Early Warning Systems about Drought and Other Natural Disasters and Catastrophies. This Early Warning System by its development would be an effective process for Pre-disaster Planning and Disaster Prepardeness inorder to assist either to take active steps in the prevention of disasters but also inorder to take actions necessary for effective responses to the needs in a disaster situation.

As far as the implementation of assistance is concerned over the years, a Special Account has been made available to be used at the discretion of our Director-General on this specific recommendations of the WHO Executive Board for use in unusual circumstances including disasters, catastrophies, drought etc.

This amount which was relatively small has been increased within decade on acccunt of the special emphasis being placed on the rapid responses for action in disastrous situations. According to a mandate to the Organizations by resolutions of the WHO Executive Board and the World Health Assembly, apart from this fund, the Director General has been mandated to seek extra budgetary resources including those which could be made available from the special account for Natural and Other Disasters of the Voluntary Fund from Health Promotion.

In addition, a special Division has been established in our Headquarters for Emergency Relief Operations and this division has been a strong force both for mobilization of global resources and to give special technical services at the International Level for the mechanisms given to appeals for assistance in these disaster situations from WHO. In that connection, the Organization has established, again based on Resolutions of our Executive Bodies co-ordinating mechanisms which are increasingly intensified in their effectiveness for joint action within the United Nations and the Other Organizations of the UN System, particularly the UN Disaster Relief Office, (UNDRO), UNICEF, the League of Red Cross Societies, UNDP, World Food Programme (WFP), Food and Agricultural Organizations (FAO), IBRD and the Permanent Inter-State Committee for Drought Control in the Sahel (CILSS) and others. This is specifically directed to relieve suffering and alleviate the health effects of drought-stricken populations and for persons suffering from other disasters including those in the Sahara Sahalian Zone, and also to look into the actions to be taken for long term support. WHO recognizes the economic effects of these disaster situations with that impact on social development in the countries so affected and the long term damage to health development.

In addition to that, from the broader stand point, my Organization views these disasters with reference to their far-reaching implications for the WHO Human Health and Environmental Health Programme and the Collaborative Efforts we pursue with the UN Environmental Programme (UNEP). To that end, we are undertaking preparatory activities for the Drought and Desertification Conference in 1977 to be held in Addis Ababa, Africa, in April and the Global Conference expected to take place in October 1977.

Now as far as the subject matter in hand is concerned, in the item on the agenda, with reference to the review of drought situation and other natural disasters in Africa, and the action recommended by the Ad Hoc Committee, I would like to state that we take note now of the resolutions on Drought and Other Natural Disasters in Africa, CM/Res.465 (XXVI) of the Council of Ministers of the OAU Meeting at its Twenty-Sixth Ordinary Session in Addis Ababa from the 23 February to the 1st of March 1976 where it states "In view of the magnitude of the problem, the OAU General Secretariat should seek support from the UN Bodies and its Specialized Agencies as well as from other International Communities for mitigating drought." We take note of this and would like to assure of our prepardness to act, as we have been acting, according to the situation as it arises; specifically with reference to the request from our Member States, our Emergency Relief Office in Headquarters in Geneva, as well as our Regional Offices respond, as it is required, according to our small resources but more so, with reference to our further assistance from the mobilization of more resources as the occasion demands to meet the requirements of such items as vaccines, medicines, medical supplies and equipment and pharmaceuticals including vitamins etc.

The WHO Executive Bodies have also passed resolutions on which we act with reference to the needs and especially those health needs that arise from the Liberation Movements in Africa which we support.

The next point to which I would direct the attention of the Committee is that of the specific action that needs to be taken on the subject of giving assistance geared to "multiplier effects by social action programmes for social development" especially in those areas where populations may have hitherto not been reached by health and social and welfare services.

This would apply to nomads and semi-nomads in desert areas and to victims in slum areas affected by disasters such as floods, cyclones, earth-quakes, etc. Needs for relief aid, for example by food grains for such populations may also be more effectively conjoined with stocks of high yielding seeds by which they could participate in proper effective action on a self-help basis to meet their needs from "Quick Crops" which they themselves might plant.

There are many other areas of self-help where the "captive populations" in disaster situations may be the recipients of assistance for skill development to meet their own conditions. Much more thought and attention needs to be given to this aspect of the disaster problem including the better provision by Basic Sanitary Measures and Nutrition and the Implications to these populations of Human Resources Development. This may have a proper climate for more effective action in this direction while such items as food aid are being given.

It is clear that this OAU Committee has an opportunity to carry through an immense task in collaboration with the work outlines above through the WHO and the other International Organizations where the resources of OAU may as seed-money may be effectively used for a more rapid "on-the-spot response" for real suffering. In addition, the OAU Support could assist to crystalize further International Action in response to the demonstration of concern that would be shown by this Organization particularly responsive to the needs of its Member States as an expression of collaborative self-reliance and solidarity in Africa. This should be taken in the light of the fact that more extensive assistance from outside Africa may take a little time to be mobilized and to be delivered.

I would repeat that the WHO stands ready to co-operate with OAU and the Member States in areas of mutual concern on this important problem.

Dr. Sam Street
WHO Representative and
Chief of Mission and WHO Liaison Officer
with ECA/OAU

Addis Ababa,
29th November 1976

STATEMENT OF THE REPRESENTATIVE OF ADB TO THE FOURTH SESSION OF THE OAU AD HOC COMMITTEE ON DROUGHT AND OTHER NATURAL DISASTERS

The African Development Bank Group does not finance emergency relief operations, but the Group does finance long term solutions.

Since 1974 the African Development Fund is giving priority to projects in drought stricken countries, and since 1976 the Nigerian Trust Fund has on the top of its list of priorities the most affected countries.

Consequently, the Bank Group is financing and is willing to consider financing long term projects in drought stricken countries with soft loans from ADF and NTF.

CONTRIBUTION OF THE REP ESENTATIVE OF THE PERMANENT INTER-STATE COMMITTEE ON DROUGHT IN THE SAHEL (CILES)

Contribution of the Representative of the Permanent Inter-State Committee on Drought in the Sahel (CILSS)

Mr. Chairman,
Gentlemen,

I am very grateful to you for giving me the opportunity to take the floor at this meeting, so as to make you conversant with the actions taken by the Inter-State Committee on Drought Control in the Sahle (CILSS) in order to find adequate means leading to the alternation of the consequences of the serious calamity which struck the people of the Sudanese - Sahelian area for more than five years.

In fact, this is the first time the CILSS is participating in the proceedings of the OAU ad hoc Committee on drought and natural calamities. Our absence at your meetings cannot be attributed to the CILSS which has been trying since its establishment to cooperate with all the institutions serving the same purpose. This is the reason why on receiving the invitation from the Director of the OAU Department of Science and Culture requesting us to participate in your fourth session of the ad hoc Committee, the Executive Secretary of the CILSS readily asked me to represent him. It is therefore a great pleasure for me to take the floor as the officer responsible for the External Affairs of the CILSS and to introduce to you the Organization I am representing here.

The CILSS is the result of the willingness of the African countries in the Sudanese-Sahelian area stricken by drought from 1968 to 1973 to come together and look for ways and means to combat the effects of the drought and find the necessary remedies enabling them to forecast or to avoid at least, such calamities in future with all the consequences involved.

Thus, in September 1973, the Heads of the six States mostly affected by the drought viz: Chad, Mali, Mauritania, Niger, Senegal and Upper Volta met in Ouagadougou (Upper Volta) and signed a Convention asserting their common will to face the calamity and strengthen their cooperation in every field.

Thus was established the Permanent Inter-State Committee on Drought Control in the Sahel with its headquarters in Ouagadougou, capital town of Upper Volta. One Convention establishing the CILSS came into force on 1 July 1974.

As you will notice from the pamphlet distributed to you, this Committee is engaged in a large number of tasks. The first was to adopt a common strategy in order to combat the drought and its effects in the Sahel.

This strategy took the form of a number of development operations to be carried out at national and regional levels. These operations presented as projects are summed up in a compendium, generally known as "Ouagadougou Programme". In this programme, priority was given to the following actions:

- Water control so as to avoid the subsequent of national economies to climatic riotes;
- rational development of agricultural and stock breeding areas in order to keep to the population - resources equilibrium, to make a better use of the land and to organize in a better way livestock production;
- development of infrastructures. particularly roads and means of transport;

- improved conditions in education, training, health and nutrition;

- Joint development of river basins;

- reinforcement of the existing meteorological services and establishment of a training centre in agro-meteorology and applied hydrology;

- coordination of all research programmes at regional level by creating an institute of the Sahel;

- improvement of the roads connecting the different states and of the secondary roads in the various states;

- improvement of the means of telecommunications between the different countries.

It will be noticed from the above that, our programme is rather an ambitious one and embraces all the vital sectors likely to restore quickly, the economy of the Sudanese Saholian area perturbed by the recent drought, if implemented.

I shall not dwell much on the description of the way in which the CILSS is organized since this can be found in the pamphlet distributed to you, but I would like to draw your attention to the fact that the CILSS is open to all African countries which experienced the same calamity and see in our joint effort the real means of encountering their difficulties.

To keep up with its action, it became necessary for the CILSS to appeal to International Cooperation which made every effort to give the latter financial assistance with a view to enabling it to carry out its ambitious programme leading to the recovery of the Sahel.

A movement of sympathy was thus created in favour of the CILSS in Western countries with the result that last March witnessed the founding of the Club of the Friends of the Sahel in Dakar. This Club which is not a formal institution brings together the Member States of the CILSS on the one hand, and the Organization for Economic Cooperation and Development (OECD) on the other. It aims at convening regular meetings with a view to defining the way to organize and implement a long term development strategy of the Sahel. It is open to every country desirous of making a contribution.

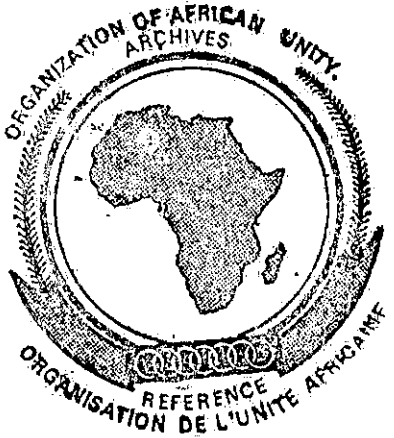
Since the founding of the Club of the Friends of the Sahel, a working group was formed bringing together representatives of the Member States of the CILSS, of the OECD countries, as well as Experts of international institutions. The working group has already met once in Ouagadougou in June and formed teams responsible for the studies of the different economic sectors: dry farming, irrigated farming, stock breeding, fishing, transporting and communications, ecology and environment, technology, produce marketing, human resources, etc.

As you can notice from the above, an effort is already being made to mobilize all the important resources of international cooperation. It is a great encouragement for the Member States of the CILSS and yet another reason to invite all countries facing the same calamities like those of the Sahel to join the CILSS, so that, together, we may alert more forcefully and convincingly international opinion on

our problems which can only better be solved in unity.

Mr. Chairman, gentlemen, these are some of the things worth knowing about the activities of the CILSS. I am entirely at your disposal for further particulars.

THANK YOU!



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Report of the Secretary General on the Fourth Session of the OAU Ad Hoc Committee on Drought and Other Natural Disasters in Africa

Organization of African Unity

African Union