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ASSISTANCE TO DROUGHT-STRICKEN AREAS OF AFRICA AND ADJACENT AREAS

Report of the Administrator

Summary

1. This report is being submitted in compliance with the decision of the Governing Council at its twenty-first session (January-February 1976) that the report on assistance to drought-stricken areas of Africa and adjacent areas should form part of the annual report of the Administrator.
2. The report takes into account the decisions of the Governing Council at its twenty-fourth and twenty-sixth sessions (June 1977 and June 1979), in which it requested the Administrator to continue to report to it on the implementation of rehabilitation and development programmes for the Sudano-Sahelian region. In this connexion, the Council will also have before it the report of the Secretary-General on the implementation of the recovery and rehabilitation programme in the Sudano-Sahelian region, submitted in compliance with its decision 79/20 and General Assembly resolution 34/16.
3. In this report assistance to drought-stricken areas of Africa and adjacent areas is discussed in four parts: the situation in the Sahelian countries, the situation in east and southern Africa, the situation in other African countries, and action to combat crop pests.
4. The report provides the Council with information on emergency assistance measures requested by drought-stricken countries and on the status of rehabilitation and development programmes implemented in those countries with international assistance.
5. The report also emphasizes the need to continue and increase international assistance for long-term recovery programmes, especially in countries still seriously affected by the 1979 drought.
6. Finally, the report describes the progress of regional crop and harvest protection measures.

INTRODUCTION

1. This report is being submitted in compliance with the decision of the Governing Council at its twenty-first session (January-February 1976) that the report on assistance to drought-stricken areas of Africa and adjacent areas should form part of the annual report of the Administrator.
2. The report takes into account the decisions of the Governing Council at its twenty-fourth and twenty-sixth sessions (June 1977 and June 1979), in which it requested the Administrator to continue to report to it on the implementation of rehabilitation and development programmes in the Sudano-Sahelian region. In this connexion, the Council will also have before it the report of the Secretary-General on the implementation of the recovery and rehabilitation programme in the Sudano-Sahelian region, submitted in compliance with its decision 79/20 and General Assembly resolution 34/16. The present report also takes into account views expressed by the Council at its twenty-fifth session (June 1978).
3. As in the report submitted to the Council in 1979, assistance to drought-stricken regions of Africa is discussed in four parts. However, Part II of the report, which last year dealt only with Ethiopia and Somalia (still seriously affected by drought in 1979), also covers the countries of southern Africa, which have begun to experience episodes of drought. The countries worst affected are Botswana, Mozambique and Swaziland, where it is feared that longer periods of drought may recur in years to come.
4. The report is divided into the following parts:
 - I. The situation in the Sahelian countries,
 - II. The situation in east Africa and southern Africa,
 - III. The situation in other African countries,
 - IV. Measures to combat crop pests.

I. THE SITUATION IN THE SAHELIAN COUNTRIES

5. Preliminary estimates by the Permanent Inter-State Committee on Drought Control in the Sahel (CILSS) and various evaluation missions from donor countries and organizations indicate that the over-all results of the 1979-1980 crop season are satisfactory in three of the eight member countries of CILSS: Gambia, Upper Volta and Niger. However, drought has again seriously affected Cape Verde, Mauritania, Chad and, to a lesser extent, Senegal. Moreover, grain production in Mali and Senegal is unsatisfactory.
6. In Cape Verde, Mauritania and Chad rainfall has been sparse and unevenly distributed. Livestock and agricultural production in these countries is unlikely to reach the level of the previous season, which was itself very poor. Emergency

aid is therefore essential to meet the food needs of the population in these three countries and to avert the grave threat to livestock in Mauritania.

7. The remainder of this part of the report will consider:

- A. The situation in individual Sahelian countries,
- B. The status of the strategy and programme of CILSS and the Sahel Club,
- C. Development of the major river and lake basins of the Sahel,
- D. UNDP assistance to subregional development agencies and programmes dealing with the Sahel.

A. Situation in individual Sahelian countries

(a) Cape Verde

8. The 1979 rainy season in Cape Verde was marked by inadequate rainfall, unevenly distributed in space and time. The whole archipelago experienced abnormally high temperatures and strong hot, dry winds. These appalling atmospheric conditions had a serious effect on the crop season, which was disastrous.

9. In order to cope with this situation, a mission comprised of representatives of UNDP, FAO and WFP carried out an assessment of the country's food needs from 1 to 8 November 1979 at the Government's request. The mission reported that grain production in Cape Verde was under 1,000 tons in 1979, whereas the country's annual consumption is 48,000 tons.

10. The following are estimates of the country's food needs for 1980 and the quantities of available food-stuffs:

Food-stuffs	Annual requirements	Minimum working stock needed in 1980	Production (1979/80 season)	Anticipated stock as of 1 January 1980	Deficit
1	2	3	4	5	6=(2+3)-(4+5)
Maize	48,000	10,000	1,000	12,000	45,000
Beans	8,000	2,600	2,000	1,700	6,900
Wheat	12,000	2,500	-	8,000	6,500
Rice	6,000	1,000	-	1,000	6,000
Milk	3,500	500	-	800	3,200
Oils	2,000	300	-	390	1,910

11. Because of the gravity of the situation, the Executive Secretary of CILSS appealed in November 1979 to the international community for emergency aid to Cape Verde. This appeal was reiterated by the Director-General of FAO in January 1980.

12. In November 1979 WFP approved emergency food aid to a value of \$908,000 to help to supply farmers whose crops were badly damaged by drought. The WFP assistance took the form of 2,500 tons of maize and 190 tons of edible oil to be distributed to 14,000 farming families, making a total of 70,000 recipients for a period of three months. The aid also included cash payments of \$67,250 to cover the cost of transport, storage and distribution of the food-stuffs.

13. At the time of writing this report, the response of the international community to the January 1980 appeal by the Director-General of FAO was still unknown. Before this appeal was made, the United States of America and France had donated 10,000 and 5,000 tons of maize, respectively, and Tanzania had made available to Cape Verde 10,000 tons of beans, funds for the transport of which were being sought.

14. A number of medium- and long-term recovery programmes have been set up by the Government with international co-operation. However, agrometeorological conditions in Cape Verde are unfortunately such that the country will probably continue to have an annual food deficit of 25,000 to 30,000 tons of maize for several years to come.

15. The drought control scheme begun in 1978 aimed to improve seed quality and to expand irrigated crops and reforestation programmes. Measures have also been undertaken for the protection of livestock, the diversification of agricultural production, the expansion of small-scale fishing and the development of the country's water resources.

16. Assistance from United Nations agencies has continued, chiefly under projects for ground-water prospecting, soil and water conservation, plant protection and strengthening the national agrometeorological and hydrological services. These projects are financed by the United Nations, FAO, UNICEF, UNSO and UNDP. In addition, in November 1979 a specialist in the selection of maize varieties was sent to Cape Verde by OSRO; his recommendations for a programme for maize seed improvement and multiplication are not yet available. Cape Verde also receives assistance to a total estimated value of \$1,517,000 under two WFP programmes: (a) a pilot project to supply a school canteen in São Nicolão; (b) assistance to particularly vulnerable groups. Finally, the International Labour Office is using Norwegian funds-in-trust to carry out a project for soil conservation, development of irrigation and reforestation.

(b) The Gambia

17. The rainy season began in May with abundant rainfall. The first rains were followed by a period of drought lasting from the end of September to the middle of October. From the information available in January 1980, it appears that in 1979 production of groundnuts, the country's main source of revenue, was below that of the previous year. At that date the Government had not reported its additional food-stuffs requirements. It did not formally declare the country drought-stricken in 1979.

18. Before reviewing the progress of the drought control programmes, it must be pointed out that the Gambia is essentially an agricultural country. Because of its small size and the lack of natural resources, its industrial potential is negligible. Its economic development is closely tied to the development of the resources of the Gambia river, which is one of the priority areas of Government action.

19. During 1979 the Gambia continued to receive assistance from the World Bank Group (IDA), the United Kingdom and the Arab Development Bank for schemes to increase the production of food-stuffs and livestock. The United Kingdom Government granted £10 million to the Gambia to finance capital projects under the second five-year National Development Plan. The United States has also contributed to the financing projects for the development of agricultural and livestock technology adapted to local conditions.

20. As regards assistance from the United Nations system, UNDP is participating in long-term development measures, chiefly through the financing of two projects on water supply for rural areas and on strengthening the Gambia's agrometeorological and hydrological services. UNSO is assisting the Gambia to provide water points for livestock. This project, which is being executed by the Department of Technical Co-operation for Development, covers the construction of 28 boreholes equipped with manual or motor-driven pumps, watering holes for livestock and reservoirs for human consumption. UNSO's \$7 million programme for the construction and maintenance of 310 kilometres of feeder roads will likewise have a significant impact on livestock and agricultural development in the country by improving communications with rural areas.

(c) The Upper Volta

21. According to FAO reports, the drought-stricken area in 1979 was further to the north-east than in the previous year.

22. A joint FAO/WFP mission to the Upper Volta in April 1979 estimated that the country required 36,300 tons of grain immediately to meet its grain shortage for approximately five months. In response to the recommendations of the mission, commitments totalling 28,200 tons of grain were made by various bilateral and multilateral aid agencies. This food aid was made up of 7,000 tons of grain from the EEC, sorghum donated by France (4,000 tons), the Federal Republic of Germany (5,000 tons) and USAID (10,000 tons), and 2,200 tons of rice donated by the Federal Republic of Germany. By December 1979 about 61 per cent of these contributions had reached the country.

23. Climatic conditions in the Upper Volta in 1979 were marked by more abundant rainfall than in the previous year. However, rainfall was unevenly distributed over the territory, so that there were pockets of drought in the northern region which caused livestock owners to move their flocks farther south. Crop pests also made their appearance in some areas of the country.

24. At the time of writing, details of the grain harvest in 1979 were not yet available. However, preliminary estimates by the Upper Volta authorities gave a

total figure of 1.2 million tons of millet, sorghum, maize and rice produced in 1979. They also predicted that, after deducting post-harvest losses (10 per cent of total production) and seed for reserve stocks (40,000 tons), the 1.04 million tons of food-stuffs available would be insufficient to meet the populations's minimum annual requirements of 1.1 million tons.

25. The foregoing shows that the Government's estimate of food needs not met by agricultural production in 1979 was 60,000 tons of grain. However, it seemed likely that the deficit could be met from existing national stocks, quantities already promised by donors but not yet delivered, and by commercial imports. A mission under FAO auspices to evaluate 1979 harvests and national food needs was due to visit the Upper Volta in early 1980.

26. The medium- and long-term recovery plans launched by the Government are being carried out with the assistance of the international community. These relate chiefly to: (a) programmes for water supply to rural areas and constructing small dams in the Sahelian region in the north of the country, carried out with assistance from FAC, EDF, the Netherlands, UNICEF, UNSO, the United Nations Capital Development Fund, the West African Development Bank (WADB) and CIDA; (b) rebuilding livestock herds, with the participation of EDF, USAID and the West African Economic Community (CEAO); (c) rural development projects assisted by USAID, EDF and various non-governmental organizations; (d) a reforestation project carried out with assistance from the Federal Republic of Germany, Switzerland and UNDP; (e) road construction, financed by CIDA, USAID and UNSO; (f) social development, organized with the help of USAID and non-governmental organizations; (g) organization of health services with assistance from UNICEF; (h) collection of agrometeorological data, financed by UNDP; (i) organization of research into seed varieties suitable for semi-arid regions, carried out under projects assisted by UNDP and FAC.

(d) Mali

27. Rainfall was insufficient throughout Mali in 1979, except in the Sikasso region, and was less than in the previous year.

28. The Government estimates the grain deficit in 1980 at 259,831 tons (184,686 tons of millet, maize and sorghum and 75,145 tons of paddy).

29. On 20 December 1979 the Mali authorities appealed to the international community for the necessary aid to meet the country's grain requirements. The assistance requested also included pharmaceutical products and food-stuffs such as sugar (22,000 tons), flour (22,000 tons), household salt (60,000 tons) and peanut oil (100 tons).

30. At the time of writing a mission of experts appointed by FAO was expected to visit Mali to assess its requirements on the basis of the results of the previous crop season.

31. The drought control strategy adopted and executed by the Government of Mali, which was described in detail in last year's report to the Council (DP/400),

is continuing. The three main aims of this long-term undertaking are to increase and stabilize production, to improve the marketing system for agricultural products and to strengthen and expand plant protection programmes.

32. In implementing this strategy, the Malian Government received aid in 1979 from such members of the international community as the World Bank, FAC, and EDF, particularly for expanding the Ségou and Mopti rice-growing schemes. In addition France, the Federal Republic of Germany, Canada, the Arab countries, ABEDA, ADB and EDF are contributing to the construction of the Sélingué dam; USAID has participated in the schemes for rebuilding the livestock population, and the United Kingdom and Japan have taken part in the programme to improve the country's marketing structures.

33. The main contributions from United Nations agencies can be summarized as follows: UNDP is supporting five large-scale projects for: (a) groundwater development with the aim of meeting drinking water requirements for human and animal consumption in one fifth of all villages in Mali; (b) the establishment of seed farms to meet the country's requirements for rice seed; (c) technical assistance for the livestock development project in the western Sahel, which will lead to an improvement in animal health; (d) strengthening agrometeorological and hydrological services with a view to developing national capacity for rational utilization of rainwater and ground and surface water; and (e) assistance to the Mali Livestock and Meat Agency (OMBEVI), which is the national authority responsible for the production and marketing of livestock and meat products. The United Nations Capital Development Fund (UNCDF) has contributed to the implementation of various drought control projects. UNSO has contributed to the financing of two projects for the building of feeder roads, at a cost of \$16 million, which are aimed at improving communications with rural areas and thereby supporting the measures planned for the agricultural development of certain parts of the country. Finally, it should be noted that FAO and WFP are continuing to play an important part in a number of drought control programmes undertaken by the Malian authorities.

(e) Mauritania

34. Mauritania again experienced severe drought in 1979. Although the rainy season started earlier, the period from May to September was marked by generally poor rainfall in agricultural areas, with volume down by from 40 to 60 per cent. The effects of this inadequate rainfall were aggravated by its irregularity. Although rainfall was normal during May and slightly above average in June, the months of July, August and September witnessed inadequate rainfall, the volume showing a drop of from 38 to 77 per cent in farming and grazing areas. Rain during October did little to change the general picture, and it was noted that the level of the Senegal River was particularly low in 1979, even lower than in 1970-1973.

35. Before assessing the results of the 1979 crop season, it must be pointed out that the grain situation in Mauritania depends primarily on rainfall and has long been precarious since most grain production comes from rain-fed crops. In recent years irrigated crops have accounted for barely 15 per cent of total grain

production. In addition, migration from rural areas seriously affected by drought has gradually brought about a substantial reduction in the area under cultivation.

36. A mission to evaluate the livestock and agricultural situation, comprised of representatives of the Federal Republic of Germany, FAO, WMO, WFP, EDF and Catholic Relief Services, inspected most of the territory of Mauritania in December 1979. The mission's purpose was to assess probable food production, especially of grains, for 1979; to quantify the grain deficit in the light of stocks, import programmes and winter and off-season crops, to estimate the requirements of food-stuffs and other goods and the funds required to deliver them, to evaluate the status of livestock production and of the environment; and to determine what emergency action was needed.

37. The mission found that rain-fed crops had been seriously jeopardized by the drought in August and infestation by locusts, blister-fly and grain-eating birds. Because of the dilapidated condition of most dams, an area of barely 3,000 hectares could be used for flood-plain cropping, producing approximately 400 kg per hectare. Similarly, less than 8,000 hectares of the Senegal River oualo was under cultivation. Production of rice from irrigated cropping was static because the area planted had not increased and some planting was done on land brought under cultivation for the first time. The country's grain production of 55,000 tons for 1978 met only one third of the population's requirements. Production fell to 28,000 tons in 1979.

38. The livestock situation is equally critical, as the entire agricultural and pasture region, with few exceptions, was stricken, causing transhumance to occur earlier in the season than usual. The December 1979 evaluation mission mentioned above predicted that the resources then available would be insufficient to meet the needs of livestock beyond January 1980. It was also obvious that without assistance the interval between February and July 1980 would be a long and difficult period for the country. Owing to the haste with which the transhumance had taken place, a number of towns had been suddenly cut off from their traditional sources of meat and milk supplies. In consequence, there were fears of a worsening of deficiency diseases among the population.

39. As a result of the "livestock survival" scheme organized in 1978-1979 with joint financing from FAO, the EEC and USAID, the condition of the herds in October 1979 was generally satisfactory. However, with continuing large-scale concentration of animals into the limited areas of good grazing, the risk of outbreaks of rinderpest is ever-present. Obstacles to the satisfactory development of livestock production areas include the impossibility of making full use of good grazing land for lack of water points, brush fires and the depletion of aquifers during prolonged dry periods.

40. Signs of environmental degradation observed in 1978 have increased in frequency and magnitude. Deforestation has been widespread, with unchecked manufacture of charcoal aggravating the situation. Desertification is gaining ground, particularly in the regions of San Garafa and Macta-Lahjar.

41. Given the low levels of agricultural output and the irreducible requirements of the Mauritanian population, the over-all grain deficit for the 1979-1980 crop season is estimated at 75,000 tons.

42. In the light of the time-table for the availability of stored grain, whether domestically-produced or imported, the mission considered it essential for the assistance requested to be on hand from 1 February 1980. The volume of food supplements required in order to avert the risk of deficiencies, especially of lipoproteins and vitamins among the population of the disaster-stricken areas was estimated at 6,200 tons of powdered milk and 5,000 tons of oil and butter.

43. In response to the recommendations of the FAO/WFP mission, the Director-General of FAO appealed to donor countries and agencies to reconsider their programmes of assistance in food, agriculture and livestock with a view to responding promptly and generously to the Islamic Republic of Mauritania's request for emergency assistance.

44. On 15 January 1980 WFP approved preliminary emergency aid for Mauritania covering the supply of 10,000 tons of wheat, 1,000 tons of powdered milk and 672 tons of vegetable oil, to be distributed over a period of four months to 280,000 people. The estimated value of this contribution is \$5,413,000, of which \$817,000 represents the cost of transporting the food-stuffs within the country. According to the information available in January 1980, further contributions were expected from France, Canada and the European Economic Community.

45. Medium- and long-term recovery measures strongly recommended by the FAO/WFP mission include (a) increasing the food security reserves and stabilizing the prices and supply of grains; (b) the granting by donors of an annual supply of wheat, the size of which would be gradually reduced over a period of approximately five years, in order to enable the Mauritanian Grain Agency (OMC) to raise the purchase prices of grain to producers gradually; (c) expanding the marketing network for livestock and animal feeds; (d) concluding bilateral agreements with the Government for the supply of 30,000 to 40,000 tons of grain a year until 1985-1986, so that emergency aid operations can be confined solely to the deficit caused by exceptionally unfavourable climatic conditions.

46. The United Nations system will continue to provide and increase assistance to agronomic research, to the Seed Production Centre, and to the National Agricultural Training and Extension College at Kaédi on the basis of financial support from UNDP. The two projects currently financed by UNSO involve a programme for the construction and maintenance of 36 boreholes, at a cost of approximately \$1 million, and the construction and management of storage infrastructures, at an estimated cost of \$4.5 million. UNSO is also financing the building of feeder roads at a cost of \$1.4 million.

(f) The Niger

47. In 1979 the rainy season began in May-June. The rains stopped briefly in August and then resumed until mid-October. Rainfall was satisfactory throughout the agricultural regions of the country and was even abundant in the departments of Maradi and Zinder.

48. The crop season thus enjoyed favourable climatic conditions and there was a decline in crop pests. The few areas that experienced insect infestation were treated effectively by the national crop and harvest protection services.

49. According to the Government's estimates, the 1979 staple grain (millet and sorghum) harvest was higher than the previous year's and even exceeded the production levels achieved before the beginning of the great drought. Although agricultural production fell in certain regions of the country, the total volume of harvests for 1979 should make it possible for the Niger to meet its over-all requirements without importing basic foods. The only food that will have to be imported will be rice, consumption of which is increasing yearly, particularly in towns.

50. A government mission that assessed the food situation in the country in October 1979 showed that the 1979 harvest had produced a grain surplus of approximately 44,366 tons.

51. One of the first steps taken by the Government of the Niger after the great drought (1968-1974) was to draw up a three-year programme (1976-1978), the main purpose of which was to make the economy independent of natural factors. The activities that were carried out to that end make up the medium- and long-term drought control programme. It is again given priority in the current five-year development plan (1979-1983).

52. With regard to agricultural production, it is worth noting that the Government's plans are aimed primarily at making the country self-sufficient in basic food-stuffs. Since agriculture in the Niger is already based on maximum utilization of arable land, the Government is stressing measures to increase productivity.

53. The main goal of the Government's livestock production strategy is to improve grazing lands and to rebuild the national livestock population, which was virtually wiped out during the great drought. This programme made satisfactory progress in 1979: the Government reported that livestock numbers were up to 70 per cent of pre-drought levels in the case of cattle, camels and sheep and to 100 per cent in the case of goats and donkeys.

54. Nevertheless, in the Sahelian zone of the Niger ecological equilibrium is far from being attained. Climatic fluctuations and the reduction, or even elimination, of fallow land as a result of expanding cultivation have caused serious soil degradation. Although the Government has given special attention to this problem as part of its struggle against desertification, the measures taken

to date have not been very effective. The success of these plans probably depends to a great extent on a more active involvement of the population concerned and, so far, such involvement has been limited.

55. In order to encourage agricultural production, the Government has begun to raise prices paid to the producer. Thus, the price a farmer receives for one kilogram of millet has doubled during the last two years, from 25 CFA francs to 50 CFA francs. As a food security measure and in order to help to stabilize prices, measures have been taken to store basic food-stuffs. At present the reserves amount to 30,000 tons and, according to the Government's plan, should reach 65,000 tons in about four years.

56. In order to deal with the shortage of local expertise, several training projects have been initiated, and the Technical Institute for Rural Development, established several years ago, has been reorganized. The main projects under way with a view to increasing agricultural productivity are aimed at: strengthening applied research, expanding the Seed Multiplication Centre and training farmer-demonstrators, expanding co-operatives, increasing and improving machinery and technology, land use surveying and crop protection. Many countries and donor agencies have provided financial and technical assistance for these projects. Since the implementation of some of them coincided with the end of the great drought and the return of favourable weather conditions for agriculture, it is difficult to assess what part they played in increasing agricultural productivity. It has been found, for example, that 1979 millet and sorghum production from a larger but lower-yielding area than in 1968-1969 will exceed the output levels achieved before the beginning of the great drought. Moreover, although production of export crops, such as groundnuts and cotton, was lower than during the 1960s, the outstanding fact is that the projects implemented under the drought control plan have brought about progress in all areas. For example, projects for increasing agricultural productivity are operational in every department of the agricultural region of the country, and the crop and harvest protection services have been able to increase the effectiveness of their emergency action programmes. Agricultural research at the National Research Institute (INRAN) has grown remarkably and progress is also being made in irrigation schemes.

57. The main assistance programmes of agencies of the United Nations system are the following: UNSO is financing three priority projects in the area of agricultural mechanization (\$2 million), irrigation schemes (\$1 million), construction of feeder roads (\$4.2 million); UNCDF provides assistance through loans for rebuilding the sheep population, fattening of cattle and development of agricultural co-operatives. UNICEF is assisting with expansion of water supply systems and improving the health of the rural population (concentrating on the most vulnerable groups). The main assistance provided by WFP consists of food aid for schools and improving nutrition in the most vulnerable groups. WHO is participating in the development of basic health services and assisting the new health sciences university. UNESCO is taking part in solar energy research. FAO is providing technical assistance in several UNDP-financed projects (land use, preparation of soil maps and collection of agricultural statistics).

(g) Senegal

58. The 1979-1980 harvest was jeopardized by uneven distribution of rainfall, both in space and in time. The rainy season started very early, in June, and caused flooding in some areas of the country. Thereafter rainfall was light in July and August and very inadequate in September. The regions that were most seriously affected by drought were those near the river (Dagana and Podor). These climatic fluctuations severely affected agricultural production. At the end of 1979 the Government of Senegal estimated the grain deficit at 335,000 tons and the number of persons adversely affected by drought at 3 million. The Government requested food aid from the international community in the amount of 204,000 tons of grain.

59. In December 1979, in order to safeguard the livestock, 1,875,000 CFA francs' worth of animal feed and 139 million CFA francs' worth of veterinary supplies, together with logistical support, were urgently required.

60. Measures to increase storage capacity in Senegal were provided for in agreements between the Government and several donors. The Government itself has undertaken to raise the country's storage capacity to 150,000 tons as soon as possible. This programme will be supported by bilateral and multilateral aid from USAID and the Federal Republic of Germany, among others. Experts from these two countries are now in the country preparing an accurate estimate of the contributions that each of them will have to make. France is providing 100 million CFA francs (\$480,000) for this programme.

61. Under the Government's development and drought control programme, priority continues to be given to water management and to the improvement of the yield of irrigated crops, all within the framework of the Senegal Valley development projects.

62. The agencies of the United Nations system continue to be actively involved in the recovery programmes undertaken by the Government. WFP continues to play a key role in food aid. Finally, mention must be made of the water resources planning programme, financed jointly by UNDP and UNSO, and now being expanded, the success of which has prevented a serious water shortage in Dakar.

63. UNDP is also providing assistance for strengthening the agrometeorological and hydrological services, dune stabilization on the Grande Côte and development of the Casamance forests. These programmes will be strengthened in the coming years in close co-operation with UNSO. UNSO is also assisting feeder road construction projects, the estimated cost of which is \$1.2 million.

(h) Chad

64. In 1979, unlike 1978, rainfall was inadequate throughout the Sudanian zone of Chad, which covers the following six prefectures: Mayo Kebbi, Tondjilé, West Logone, East Logone, Moyen Chari and Salamat.

65. The situation in the eight prefectures of the Sahelian zone (Chari-Baguirmi, Kanem, Lac, Batha, Guéra, Ouaddaï, Biltine, B.E.T.) was marked, as in the previous

year, by inadequate, late and unevenly distributed rainfall. Climatic conditions were particularly unfavourable in the prefectures of Kanem, Lac, Biltine and northern Chari-Baguirmi, thus delaying sowing and necessitating replanting in many cases. Locusts were reported in the subprefectures of Dourbali and N'Djamena. Only the prefecture of Guéra enjoyed favourable cropping conditions.

66. Although rainfall was poor throughout the Sudanian zone, agricultural production will cover the food needs of the population in five of the six prefectures. Only the prefecture of Mayo Kebbi will have a grain deficit, estimated at 15,620 tons, owing to the poor rainfall and the decrease in the area under cultivation caused by the displacement of much of the population during the war.

67. In the Sahelian zone agricultural production was below requirements in every prefecture except Guéra, where surplus grain production was estimated at 3,500 tons. Although the total volume was lower than in 1978, the grain deficit in the zone in 1979 was 76,000 tons. The prefectures of Kanem and Lac, which experienced particularly poor rainfall, were declared drought-stricken. With a Sahara-type climate, the regions comprising the prefecture of B.E.T. will, as in previous years, have to import almost all their grain from nearby regions.

68. Taking into account the 25,500-ton grain surplus in the Sudanian zone, Chad's total grain deficit for the 1979 crop season amounted to 51,000 tons.

69. At the time of writing, emergency assistance to meet the food needs of the population in the three drought-stricken prefectures - Kanem, Lac and B.E.T. - was estimated at 30,000 tons of grain.

70. In 1979, WFP emergency assistance covered the supply of 5,000 tons of wheat to the Sahelian population of Lake Chad, Kanem and northern Chari-Baguirmi.

71. In view of the situation created by the civil war, accurate data on the status of the medium- and long-term recovery programmes were not available at the time this report was drafted. It should be noted, however, that in February 1980, work was resumed on UNSO-financed feeder road construction projects with an estimated cost of \$8.2 million.

B. Status of the rehabilitation and development strategy and programme of the Permanent Inter-State Committee for Drought Control in the Sahel (CILSS)

72. As was stated in last year's report to the Council, the Permanent Inter-State Committee for Drought Control in the Sahel (CILSS), established in 1973 by the Sahelian States, is an effective tool of regional co-operation through which Cape Verde, the Gambia, the Upper Volta, Mali, Mauritania, the Niger, Senegal and Chad are working together to rehabilitate their economies, severely damaged by the drought.

73. In support of the work of CILSS and its member States, co-ordination machinery has been set up by the Sahelian countries, the United Nations system and the

international community, including the Sahel Club, which has from the beginning been actively supported by UNDP, UNSO and other United Nations agencies, including FAO. The outcome is a strategy to combat the effects of the drought, the main goal of which is self-sufficiency in food.

74. Within this framework, the second Conference of the Sahel Club drew up a five-year programme of the "first-generation" projects (1978-1982), which was adopted in December 1977 by the Conference of Heads of State of CILSS at Banjul in December 1977.

75. As was stated in the 1979 report as of November 1978 funding had been secured for 30 per cent of the total cost amounting to \$3,000 million of the first-generation programme. As a result of the efforts of CILSS, financial commitments to the programme by donors as of August 1979 amounted to approximately \$1,000.7 million or 56 per cent of the over-all cost of the programme.

76. With a view to increasing the absorptive capacity of the member States of CILSS and thus facilitating the implementation of the first-generation programme, UNDP approved in July 1979, at the request of these States, a project for which the Department of Technical Co-operation for Development (United Nations) is the executing agency. The main objective of this assistance is to establish within the Projects and Programmes Office of the Executive Secretariat of CILSS a new administrative nucleus with the function of increasing the Secretariat's capacity to generate, in co-operation with the competent national organs of the member States, properly-prepared first-generation projects in the numbers required to ensure the implementation of the development strategy and programme for the Sahel.

77. In 1979 CILSS, with the assistance of the international community, continued to refine the rehabilitation and development strategy and programme for the Sahel, using sectoral teams to prepare and evaluate action plans for crop production, livestock production, fishing, ecology and forestry, human resources, crop and harvest protection, and transport and infrastructure. Of particular interest is the ecology and forestry team's preparation of a programme of action for reforestation and desertification control, since this subject was given high priority by the tenth Council of Ministers of CILSS at its meeting at Nouakchott in December 1978. UNSO, which has been instructed by the General Assembly to assist the countries of the Sudano-Sahelian region to implement the Plan of Action to Combat Desertification, co-operated with this team. At an UNSO-funded meeting held in November 1979 at Dakar, under the auspices of CILSS, a unified CILSS/Club/UNSO plan to combat desertification was prepared. This unified plan was approved at the fourth Conference of Heads of State of CILSS at Ouagadougou in January 1980. The UNDP Administrator, Mr. Bradford Morse, took part in this Conference and reported, on behalf of the Secretary-General, on the measures being undertaken by the United Nations system through UNSO. He reaffirmed his personal and official support and the support of UNSO for the achievement of the development and rehabilitation objectives which the member States of CILSS have set themselves.

C. Development of the major river and lake basins of the Sahel

78. Last year's report to the Council provided information on the status, as of late February 1979, of the integrated development schemes for the following river and lake basins: the Senegal, Gambia, Niger, Lake Chad and Logone. This report will provide the Council with information on recent developments relating to these programmes. Data which were included in the 1979 report but which provide essential background to the subject and to the individual projects will be recapitulated briefly.

79. As has been mentioned in previous reports, UNDP has been closely associated with efforts being made since the early 1960s by the Sahelian countries to develop their river and lake basins. After the drought of the early 1970s, the need to speed up the development of these resources has become more urgent. On the basis of a UNDP proposal and with the agreement of the countries concerned, a multidisciplinary and "multi-donor" approach has been adopted.

(a) The Senegal River

80. Financial assistance already available or being negotiated by the High Commission of the Organization for the Development of the Senegal River (OMVS) has funded engineering studies for the Diama and Manantali dams and the continuation of studies on navigation, ports, ecology, topography, agronomic research, institutional support, socio-economic questions and irrigated agriculture projects in the three countries concerned (Mali, Mauritania and Senegal).

81. Within the framework of this over-all programme, UNDP continues to play an active role in three main spheres: (a) the institutional support project being executed by the Department of Technical Co-operation for Development (United Nations) since January 1980, which makes available to OMVS an adviser on legal and institutional matters, consultant services for specific purposes determined by OMVS and funds for subcontracts with consultant engineers to help OMVS to analyse tenders and draft contracts for the construction of the Diama and Manantali dams; (b) the agronomic research project being executed by FAO which covers rationalizing cropping and farming systems, selecting and introducing new varieties of seeds and new cultivation methods, and improving techniques for farming small holdings; (c) the project on socio-economic surveys of the Senegal River basin, executed by the Department of Technical Co-operation for Development (United Nations), the chief aim of which is to institute a development performance evaluation system.

82. The decisions taken at recent meetings of the OMVS call for the following comments.

83. In view of the fact that prices rise as the work progresses, OMVS was compelled to adopt a time-table for carrying out individual segments of the work on the Diama and Manantali dams, although no change was made in the over-all targets. The estimated cost of the first-segment operations, in terms of 1979 economic conditions, is approximately \$596 million - \$132.6 million for the Diama dam and \$463.4 million for the Manantali dam. Commitments totalling \$493.5 million have already been made by the following donor countries and agencies: Abu Dhabi, Federal Republic of

Germany, Saudi Arabia, Islamic Development Bank, Canada, France, Iran, Italy, Kuwait, African Development Bank and European Development Fund. New contributions (or increases in pledges) are expected from the following sources: United States of America, Arab Bank for Economic Development in Africa (ABEDA) and the European Economic Community (fifth EDF).

84. In order not to delay construction of the dams unduly, the member States of OMVS decided to begin work as soon as possible, while continuing their fund-raising campaign. Tenders for the Diama dam were evaluated in 1979 under a project financed and executed by UNDP. The first-segment work on this dam, the foundationstone of which was laid on 12 December 1979, was to begin in 1980. The first segment of construction on the Manantali dam is to begin during the first quarter of 1981 and the member countries of OMVS have agreed that its height will be 208 metres.

85. On the basis of an estimate, prepared in April 1979 by OMVS, UNDP and other donors, of additional contributions that will be needed by OMVS for the execution of various projects until 1981, OMVS requested an additional contribution from UNDP. This was approved in December 1979, bringing UNDP's total financial input to the OMVS programme to \$3,623,880 for 1977-1981.

(b) The Gambia River

86. A mission of experts from the financing agencies interested in the development of the Gambia River (CIDA, ODM, FAC, UNDP and USAID) visited the country in March-April 1977. In a preliminary summary report, drawn up in June 1977, the mission suggested a three-phase plan of action covering the period up to 1985, the years 1985 to 2000, and the period after the year 2000. On the basis of this summary report, consultations were held with the two member States in November 1977, which culminated in a decision to prepare a set of detailed development strategies from which the two member States could select a development strategy compatible with their respective national plans and any social and economic constraints they might have. The development strategies differed in the sectoral variants they proposed (non-irrigated agriculture, irrigated agriculture, forestry, livestock production), the technological means to be applied in each type of sectoral development (manpower, equipment, fertilizers, management, agricultural extension and financial inputs from government) and the nature and magnitude of the infrastructures required to implement the sectoral variants making up each strategy.

87. The final report was completed in December 1979. It contains a detailed analysis of the five development sectors considered, a description of the development variants for each sector, the optimum combination of these variants which constitutes the proposed development strategy, and a plan of action for implementing this strategy. The plan of action calls for a budget of some \$65 million for the medium term (1981-1985) and a minimum of \$450 million for the long term (1986-2000). The report was prepared in close co-operation with experts of the two riparian countries; indeed, the proposed strategy and plan of action were prepared by a group of senior officials from the two countries, with the co-operation of USAID and UNDP, during a three-week working session held in the United States in October-November 1979.

88. The report was submitted in February to the Council of Ministers of the Organization for the Development of the Gambia River (OMVG) for approval. A conference of financing agencies is planned for June 1980 at OMVG headquarters at

Kaolack (Senegal) for the purpose of organizing funding for the first stage of the plan of action adopted.

(c) The Niger River

89. At the second meeting of the funding agencies (CIDA, FAC, USAID, UNDP), held in Paris in January 1977, the participants agreed on a five-year programme, which was subsequently approved formally by the Council of Ministers of the Commission at its meeting at Lagos in February 1977. This programme has three main components: (i) a plan for institutional support with a view to strengthening the Commission; (ii) a diagnostic exercise involving the collection and analysis of existing data with a view to preparing an outline development strategy; (iii) a five-year programme of action to be implemented by the Niger River Commission with the help of experts provided by the funding agencies. The programme of action will cover surveys and specific preparatory activities for the formulation of a detailed programme for the management of the river basin, the execution of which could begin immediately.

90. The budget required for the implementation of this programme was estimated at some \$26 million. The total amount of pledges by funding agencies to date is \$16.5 million, not counting contributions in kind pledged by France.

91. In order to give impetus to the programme, pending the reactivation of the Commission, which has been paralysed by internal problems, UNDP recently approved a preparatory assistance programme for flood forecasting on the Niger. This is a basic activity of interest to all the riparian States (Guinea, Mali, the Niger, Benin and Nigeria). This preparatory assistance culminated in the formulation and approval of a large-scale assistance project financed by the OPEC Special Fund, the European Economic Community and UNDP, at a total cost of \$4,530,000.

92. Since the Niger River Commission is finding it difficult, for internal reasons, to get the above-mentioned development programme under way, a Conference of Heads of State of the member countries was held at Lagos in January 1979 and took decisions aimed at a final settlement of the Commission's internal problems.

93. In January 1980 these difficulties appeared to be nearing a solution. They should be finally disposed of at the forthcoming meeting of the Council of Ministers of the Niger River Commission, to be held from 5 to 12 March 1980 at Conakry (Guinea).

(d) Lake Chad

94. UNDP has been co-operating with the Lake Chad Basin Commission (CBLT) for over 12 years in the implementation of development projects in the Lake Chad Basin. When the general surveys were completed, it became necessary to work out an over-all medium- and long-term development strategy with the assistance of other funding agencies interested in the development of the Basin.

95. In 1977 the Commission therefore requested UNDP to organize assistance from external financing sources for the CBLT programme. On completion of the technical consultations, the representatives of these financing sources (France, Italy, the Netherlands, USAID and UNDP), in consultation with the Executive Secretary of the

CBLT and with technical assistance from FAO, agreed that their assistance should be applied to the organization of a programme for the implementation of short-term bankable projects and the preparation of a medium- and long-term development strategy.

96. In response to the CBLT request, a first conference of funding agencies was convened in September 1977 in Paris, and it decided to organize and finance a mission of experts provided by the financing organizations.

97. The mission was organized in October-December 1977. Its final report was evaluated by CBLT experts and submitted to the Commission at its twenty-fifth session at Niamey (Niger) in October 1978. The report was adopted with some amendments.

98. In substance, the mission recommends the implementation of nine projects representing a pre-investment outlay of some \$80 million. Furthermore, in order to prepare the project profiles in the form required by international financing institutions, a programme of additional surveys (mainly topographic surveys and soil studies), to cost \$2.4 million, was recommended by the mission. Funding for the nine projects identified is actively being sought from possible sources of assistance, with the help of UNDP.

99. The study of medium- and long-term development strategies, at an estimated cost of \$1.6 million, will be entirely covered by the financing sources which have already indicated their interest (see para. 95). On the basis of an invitation to tender, a consortium of enterprises was selected to carry out these studies and began work in the field in August 1978.

100. In May 1979 the consortium submitted an interim report to the member States of the Commission and the financing agencies at a meeting of the consultative committee of their representatives. The final report of the consortium was prepared on the basis of the conclusions reached at that meeting and was submitted in February 1980 to all parties concerned. A consultative committee meeting to discuss the report is planned for the first quarter of 1980.

101. The report outlines strategies for the development of the Lake Chad Basin based on the variants chosen by the CBLT. The programme of action for implementing these strategies calls for a budget of some \$4.5 billion up to the year 2000.

(e) The Logone River

102. The Logone River is the main tributary of the Chari and contributes about 30 per cent of the volume of water flowing annually into Lake Chad. The Logone River Basin, which is situated outside the CBLT area, is vitally important to Chad and Cameroon. Flood control in the upper Logone River Basin is a prerequisite for the social and economic development of the lower basin area. Furthermore, regulation of the flow of the river would benefit the Lake Chad Basin Commission in a number of ways. In 1975 UNDP was asked by the two member States directly concerned (Cameroon and Chad) to draw up a development programme for the Logone River Basin on the basis of preliminary work which it had already financed. As

a result of this request, two UNDP field missions were organized to estimate what inputs would be required for the preparation of an integrated development programme. A two-phase plan of action was drawn up, which covers the following activities:

(1) Phase I

(i) Pre-feasibility study for the construction of two storage dams at Koumban and Goré; (ii) preparation of a mathematical model for hydrological simulation; (iii) sectoral studies of agriculture; (iv) studies of repercussions of the development project on the health of the population; (v) study on the demand for energy.

(2) Phase II

Feasibility study of the Koumban and Goré construction works projects

A "Logone River development mission" was set up by the two States. Its statutes were approved in August 1978 and an executive secretary is to be appointed.

A conference of financing organizations was planned for 1979 with a view to funding the entire plan of action, phase I of which could, however, be implemented quickly under the UNDP and FAC assistance programmes. However, because of the political situation in Chad, the conference could not take place.

D. Assistance to other subregional agencies and programmes for Sahelian development

103. As the Governing Council was reminded last year UNDP has for some eight years been assisting subregional institutions set up by the Sahelian countries to promote joint rehabilitation and development programmes for drought-stricken regions.

104. UNDP assistance to the Liptako-Gourma authority (ALG), of which Mali, the Upper Volta and the Niger are members, started in 1972 and is continuing under an institutional support project, the main purpose of which is to help ALG directly to prepare and document investment projects. Project activities in 1979 were devoted mainly to the preparation of pre-investment studies and project profiles and the preparation and organization of a conference of funding agencies which was held at Ouagadougou in April 1979. Various measures were subsequently taken by the ALG to negotiate financing agreements for investment projects which were the subject of a statement of intent by donors, including UNCDF. Commitments made by UNCDF now amount to approximately \$9 million.

105. To date total financial allocations by UNDP to ALG, including provision for extending this assistance up to the end of 1981, amount to approximately \$1.11 million.

106. UNDP is also continuing to assist the Executive Secretariat of CILSS. This assistance has two main components: (a) the institutional support project, financing of which is guaranteed until December 1980. It provides CILSS with the services of experts in agricultural economics, sociology and agricultural engineering; (b) the project to strengthen the capacity of the Executive Secretariat to prepare, manage and monitor the first-generation programme adopted by the Heads of State of CILSS. UNDP financial inputs to these two projects total \$1.13 million.

107. UNDP is likewise continuing its assistance to the Institute of the Sahel on the basis of a \$1 million endowment programmed for the period 1977-1981. An institutional support project has been drawn up under this programme which will continue until the end of the cycle and will provide the Institute with the services of consultants for finalizing and implementing a multidisciplinary first-generation programme.

108. Assistance to the Institute of the Sahel also includes a post-university training project for Sahelian specialists in rangeland management, approved in January 1980, which is being jointly financed by UNDP and UNSO and executed by UNESCO in collaboration with FAO. Also covered by joint UNDP/UNSO assistance is the financing of architectural plans for the Institute buildings.

109. The Governing Council will recall that UNDP has also undertaken to assist the member countries of CILSS, through the Institute of the Sahel to implement a regional energy development programme on the basis of a \$1 million appropriation from the regional funds for the current programming cycle. In order to get this assistance under way, there will be a co-ordination meeting in March 1980, to be attended by CILSS, the Institute of the Sahel, ECOWAS, ADB, ECA, UNDP, UNSO, UNESCO, the Department of Technical Co-operation for Development (United Nations), UNIDO, CIDA, the EEC, USAID, FAC and the Central Fund for Economic Co-operation. This meeting is to draw up a project for preparatory assistance to be financed by UNDP and to adopt measures to promote co-operation among all the institutions involved in implementing projects relating to new and renewable sources of energy, especially solar energy.

110. The multidonor programme for the strengthening of meteorological, agrometeorological and hydrological services (AGRHYMET), which has been financed by UNDP and UNSO from the beginning, is successfully continuing its work of training and of collecting and disseminating data required by the agricultural, water and forestry authorities of the Sahelian countries.

111. Training activities at the Centre for Applied Agrometeorology and Hydrology, at Niamey (Niger), started in 1975 on the initiative of member States of CILSS, with the assistance of bilateral and multilateral aid agencies, including UNDP and UNSO.

112. An additional financial input of \$1.6 million was approved by UNDP in 1979 for the Regional Centre for Training in Applied Agrometeorology and Hydrology at Niamey. This contribution brings the total input from UNSO and UNDP regional

funds to the AGRHYMET programme to nearly \$4.9 million, apart from a UNDP input of over \$3.8 million from country IPFs. Since its establishment the Regional Centre has helped to train 66 Grade III agrometeorologists, 4 Grade II agrometeorologists, 52 Grade III hydrologists and 27 solar energy technicians.

II. THE SITUATION IN EAST AFRICA AND SOUTHERN AFRICA

(a) Ethiopia

113. Statistical data assembled by the Ethiopian Government as part of a food and nutrition monitoring programme run by the national relief and rehabilitation committee show that the 1979 spring rainfall, for the period February-May, was satisfactory in most of the country, the exceptions being Arussi, Bale, Hararghe, Wollo and Tigrai regions. It should be noted that although the spring rains are crucial for crops grown in mountainous areas, these supply under 10 per cent of the country's annual production.

114. Data provided in August 1979 by the national agrometeorological services showed that the summer rains (June-September) had so far been good throughout the country, except in the Illubador, Wollo and Tigrai regions, which were already affected by poor rainfall. Moreover, in areas where the rains started late, there were fears that crops would not reach the ripening stage.

115. According to reports issued by the Government in 1979, harvests for the November 1978-January 1979 crop season were below normal. Inadequate production led to food shortages affecting 2 million people in the mountainous areas of Wollo and Tigrai and the 2.3 million people displaced by the war who are now in the regions of Eritrea, Gondar, Bale, Sidomo and Hararghe.

116. In 1979, as in the previous year, drought was not the only obstacle to expanding agricultural production in Ethiopia. It remains a major hazard, but other equally important constraints on development emerged: recurrent infestation by locusts and other crop pests, gradual deterioration of the soil, inadequate seed and fertilizer supplies, lack of agricultural infrastructures, and armed conflict.

117. The Ethiopian relief and rehabilitation committee estimated in June 1979 that the amount of emergency food aid needed to meet requirements in the Wollo and Tigrai regions alone until the next harvest came to 120,000 tons.

118. Food aid reaching Ethiopia during 1979 consisted of 111,125 tons of grain, 10,728 tons of food supplements, 3,000 tons of wheat and 1,000 tons of wheat flour for local processing into the enriched food product known as fafa. Ethiopia also received 25,000 tons of wheat and 7,000 tons of vegetable oil from WFP under the regular development programme and for "food for work" projects.

119. The Government has told donor countries and agencies that the volume of rainfall in the Tigrai and Wollo regions had been as low as in 1973, and had damaged the crops on which the farmers there depend for subsistence. In February 1980 there were fears of a famine in Tigrai and Eritrea.

120. The Government has started to reform the planning machinery with a view to national recovery. By a decision of 29 October 1978 a Supreme Planning Council was set up, with the necessary powers to mobilize the country's human, financial and material resources. The purpose of this central agency is to attack the root causes of underdevelopment by deploying the country's productive forces, raising the level of living, eliminating poverty, ignorance and unemployment, and achieving self-sufficiency in food.

121. In 1979 the Government launched a major programme for resettling population groups displaced by the war who had been forced to leave overpopulated, drought-prone mountainous regions in the north. Under the first phase of this programme, 22,000 heads of families from the Wollo and Tigray regions were settled in special resettlement areas in the Bale, Wollega and Condar regions. During 1980 the first arrivals are to be joined by 85,000 members of their families. Simultaneously, another programme will be started to move 40,000 heads of families from arid or drought-prone regions to more fertile lands.

122. UNDP is continuing, as in previous years, to assist the Ethiopian Government in its development and drought-control measures. Of particular interest is a project covering assistance for the transport of marketable food-stuffs which was launched in 1979 with UNDP funding of some \$702,000. The project is being executed by ILO. The Ethiopian Government has also received vehicles donated for the same purpose by USAID, the Swedish International Development Agency (SIDA) and various non-governmental organizations.

123. UNDP is also financing a \$2 million project being implemented by FAO with the aim of assisting the Ethiopian Government to prepare an outline plan for land use and for the implementation of a programme for the conservation and effective use of soil and water resources.

124. FAO is also assisting the Ethiopian Government under a number of UNDP-financed projects on training national experts in land use planning, soil and water conservation, and the development of irrigated farming.

125. The Ethiopian relief and rehabilitation committee is also receiving FAO assistance under a UNDP-financed project. Finally, UNDP has made a \$4,720,000 contribution to Ethiopia to establish and consolidate an agricultural research institute.

126. Because of persistent drought, WFP assistance to Ethiopia has been substantial for many years, mainly for soil and water conservation and reforestation. Drought victims have benefited from two WFP food aid projects at a cost of \$10.7 million. The United Nations Fund for Population Activities (UNFPA) is giving assistance to Ethiopia under a \$1.7 million project for water supply to rural areas. UNCDF is participating in road-building schemes in rural areas with a financial input of \$1.8 million.

127. World Bank Group assistance to Ethiopia has continued under the financial measures (rehabilitation loan No. 485-ET) taken by the Bank in November 1974. Medium-term activities completed in 1979 involve a \$1.5 million project covering the expansion of water supplies in drought-stricken regions. The same year saw

the successful completion of other projects involving road-building, soil surveys, the development of small industries and the construction of hospitals and medical centres. Long-term recovery operations undertaken by the Bank, including soil conservation and reforestation projects, are expected to continue until 1982.

128. Emergency food aid supplied to Ethiopia by the EEC in 1979 amounted to 24,705 tons of grain and 4,450 tons of food supplements.

129. The Federal Republic of Germany is assisting Ethiopia with the rehabilitation programme for the north-east region of the country by contributing to the WFP-supported reforestation project. USAID has provided the Ethiopian Government with food aid and loans for the resettlement of people displaced by the war.

(b) Somalia

130. Rainfall in Somalia in 1979 was generally below average, and was 20 per cent less than in the previous year. Although there was practically no rainfall in September, October and November, heavy rains in May and June destroyed crops in several parts of the country, especially in the Shabelli and Juba regions.

131. Complete information concerning the level of harvests was not yet available in February 1980. It was nevertheless clear that in all regions of the country 1979 grain production would be below the level for a normal crop season.

132. The effects of the drought are particularly severe in the north of the country, where nomads in certain areas, are being forced to sell their heads to buy water at 80 shillings a barrel.

133. Moreover, the food shortage is being greatly aggravated by the continuing influx of refugees. On 31 December 1979 there were 539,060 refugees in camps, and about 700,000 outside. The level of food stocks in the country was too low to meet the needs of the population beyond February 1980.

134. At the time of writing, the Government was preparing its requests for emergency food aid. It was also requesting FAO for the early dispatch to Somalia of an expert mission to evaluate the impact of drought on food production, livestock and water supplies, and to make recommendations for a recovery programme.

135. With regard to long-term recovery programmes, measures to implement the UNDR0 report on disaster prevention and relief were due to begin in 1980. Ongoing recovery measures are concerned chiefly with strengthening the \$22-million project to develop the extensive rangelands in the north being financed by Kuwait and with the launching of a similar \$46-million project in the centre of the country with financing provided by the World Bank Group (IDA), IFAD, WFP, USAID and the Federal Republic of Germany.

136. The Government is also planning to increase the country's irrigation capacity by regulating the flow of the Juba river; the substantial investments required have not yet been secured.

137. International contributions to the Government's recovery programme cover assistance for the development of the extensive rangelands in the centre of the country with financial inputs from the World Bank Group (IDA) and the International Fund for Agricultural Development (IFAD) of, respectively, \$8 million and \$9 million. WFP has financed projects for food aid for workers and for the development of forests and grazing lands to the amount of \$15 million. The WFP contribution to settlement projects aimed at developing agriculture and fisheries is estimated at \$20 million. Finally, UNDP has recently approved an allocation of \$150,000 for the implementation of labour-intensive projects in the Homboi settlement area, where agriculture is to be developed.

(c) Botswana

138. The climate of Botswana, situated in the semi-arid zone of southern Africa, is generally characterized by insufficient, unpredictable and sporadic rainfall.

139. In 1978-1979, following a period of good rainfall, the volume of precipitation was 34 per cent below the average of earlier years.

140. Although the severity of these climatic fluctuations differed from region to region, their impact in certain areas was such that the country was formally declared drought-stricken in June 1979.

141. However, the main agricultural regions to the east of the affected areas produced normal harvests. Consequently, according to estimates in January 1980, Botswana's total production was considered adequate to meet the country's food needs in 1979-1980. Crop losses occasioned by drought are estimated at approximately \$8 million. This situation mainly affects the inhabitants of rural areas, whose purchasing power in the food-stuffs market has been considerably reduced. Moreover, the food-and-mouth epidemic in the drought-stricken areas has reduced the customary monetary income from livestock sales.

142. Emergency aid will be necessary in certain drought-stricken regions. This aid should consist of white maize, the country's staple food.

143. Through WFP, USAID is assisting the Government to establish a strategic reserve of sorghum. The Government also intends to increase the quantity of food distributed to the most vulnerable sections of the population under a special programme being carried out under WFP auspices since the major drought in 1966. An emergency aid programme has also been set up by the United Nations system to assist the Government both in the foregoing programme and in the planning of food supplies and of measures to meet emergency requirements. In particular, ILO consultants are to assist the Government in devising a labour-intensive programme for rural areas.

144. With a view to reducing the impact of climatic fluctuations on agriculture, the Government has launched a programme for the development of arable land (arable lands development policy (ALDEP)), to be assisted by IFAD. The Government has also launched public works schemes in the affected areas which will contribute to the reforestation of rural areas, the improvement of grazing land, erosion control, etc.

(d) Mozambique

145. Six of the ten provinces of Mozambique, namely, Maputo, Gaza, Inhambane, Monica, Sofala and Teté, were stricken by drought in 1978-1979. This situation affects 47 per cent of the population of Mozambique.

146. The situation created by the drought has been compounded by other problems: floods on the Limpopo in 1977 and on the Zambezi in 1978; cyclone "Angela", which struck the province of Nampula in December 1978; the presence of 120,000 refugees from Zimbabwe; and the effect on Mozambique's economy of the United Nations sanctions against Rhodesia.

147. Drought has caused a fall of 100,000 tons in grain production in addition to the country's usual deficit, thus bringing grain requirements not met by local production up to 450,000 tons. The estimated requirements for food aid for 1980 are at least 335,000 tons, at an estimated cost of \$65 million.

148. Food aid received by Mozambique in 1979 comprised the following quantities of wheat: 1,100 tons from Australia, 1,600 tons from Belgium, 11,000 tons from Canada, 16,500 tons from the EEC, 7,500 tons from the United Kingdom, 3,000 tons from Italy, 19,100 tons from Sweden, 27,168 tons from Denmark. The United States donated 30,000 of maize and 15,800 tons of rice, and Sweden also donated 9,500 tons of these food-stuffs. The WFP contribution was 5,400 tons of maize and wheat, 270 tons of vegetable oil and 180 tons of condensed milk, to feed 40,000 people for 45 days.

149. Although food donations from the international community have partly met the shortfall in production caused by the 1979 drought, Mozambique is still experiencing great difficulties with food supplies.

(e) Swaziland

150. According to the report of the United Nations mission to Swaziland in May 1979, rainfall in the 1978-1979 crop season was considerably below average, which seriously affected crops and livestock throughout the country.

151. Faced with this situation, in July 1979 the Government requested aid from WFP in the form of 35,000 tons of maize. Additional aid of 40,000 tons was subsequently requested from the EEC. At the time of writing, it appeared that Swaziland would be forced to import grain if the aid requested from WFP and the EEC was not granted.

152. Medium- and long-term programmes are being drawn up to overcome the problems arising from drought. To this end, USAID assistance has been obtained for an evaluation of the country's water resources.

153. By December 1979, the problems created by the 1979 drought were well on the way to solution. Nevertheless, it seemed advisable to recommend increased United Nations assistance to enable the country to cope with the wave of drought which seems likely to affect southern Africa during the present decade.

III. THE SITUATION IN OTHER AFRICAN COUNTRIES

154. As was stated in last year's report to the Council, the countries considered in this chapter are those in which most of the territory is generally not affected by drought but which have suffered from drought in a limited area to some extent. As far as the available information permits, developments in the situation in the countries within this category reported on last year will be brought to the Council's attention, even if they were not affected by drought in 1979.

(a) Ghana

155. The food situation in Ghana in 1979 showed an improvement over that for the preceding year.

156. Rainfall was above average in most regions of the country. Because of heavy rainfall, rice could not be planted in time in two provinces, the Northern Region and the Upper Region. Although there may be a shortfall in rice production, over-all harvests in 1979 will probably be sufficient to meet the population's food requirements. However, there is an acute problem in connexion with transporting food to various parts of the country.

(b) Guinea

157. Both the volume and the distribution of rainfall recorded throughout Guinea in 1979 were satisfactory. Two regions, however, were affected by climatic disturbances: Basse-Guinée, which experienced delayed rainfall and caterpillar infestation of rice and maize plants, and Haute-Guinée, which experienced flooding, especially in the regions of Dinguiraye and Kankan.

158. The expected shortfall in agricultural production in 1979 is probably not attributable to drought but to other factors, such as severe deforestation and the lowering of the water table.

159. Even if harvests are normal in 1979, they will be insufficient to meet the country's needs, because in a normal year Guinea has to import an average of 60,000 tons of rice to bridge the gap between rice production and local consumption requirements.

160. As the Council was informed last year, the measures adopted by the Government to combat the effects of drought are essentially aimed at crop diversification, expanding grain growing in semi-arid zones, and prospecting for ground-water reserves.

161. UNDP will continue to support projects specifically designed to find medium- and long-term solutions for drought-related problems, such as the plan for harnessing water resources in Moyenne-Guinée, the small-scale agricultural water supply project and the development of livestock production. At present two large-scale WFP projects are supplying food aid to agricultural training and production centres and to sectors of the population affected by the shortfall in agricultural production in 1977.

(c) Guinea-Bissau

162. During the 1979 crop season in Guinea-Bissau climatic conditions were appalling. Rainfall in the rainy season was insufficient and irregular, causing a serious rainfall deficit throughout the country.

163. Output of food crops was 50-60 per cent below that of normal crop years. Cash crops (cotton and groundnuts) were also seriously damaged, and this will lead to a substantial reduction of exports and aggravate the trade deficit.

164. Given the results of the crop season, from January 1980 the country needed 46,000 tons of grain (especially rice and maize) to guarantee food supplies for the urban population throughout the year and for the rural population for four months. The estimated requirements for food supplements were 4,000 tons of sugar, 6,000 tons of oil and 7,000 tons of wheat flour.

165. Assistance measures are also necessary to improve production, basically in the form of supplies of seed, fertilizer and insecticides.

166. In response to the appeal issued by the Government, a number of donors granted assistance for the dispatch of basic foods and aid for improving the factors of production.

167. Emergency aid of \$100,000 from the Netherlands enabled grain and vegetable seed to be purchased by the end of the 1979-1980 season. The Netherlands also granted aid of 2.5 million guilders for dealing with the effects of the bad crop season and \$US 460,000 for the purchase of fertilizer. Pesticides and crop treatment materials were supplied by means of a \$1 million allocation from UNDP. A request for \$200,000 for the purchase of seed was submitted to the EEC under its provisions for emergency aid to disaster-stricken countries.

168. Other commitments cover 44,000 tons of rice to be supplied by the Netherlands, 1,000 tons of maize from France and 3,500 tons of maize from WFP.

169. The requirements still outstanding include assistance for transport (fuel, spare parts, etc.) to overcome the difficulties of delivering food and factors of production to rural areas.

170. With regard to the Government's medium- and long-term recovery programme, the purpose of the measures adopted is (a) to purchase seed and establish a reserve stock with the assistance of UNDP and FAO, and of WARDA and WFP. Under this programme, a laboratory and cold store for seed storage will be set up in 1980, and silos will be built to house a reserve stock of grain; (b) water engineering works in order to develop irrigated cropping. To this end a UNDP-financed national project to develop the Corubal river basin is under way. This project will receive supplementary assistance from WFP in 1980.

171. Under the rehabilitation and development project for rice growing, assisted by FAO and WFP, 30 anti-salt dams and dykes have been built in 18 months. A loan from ABEDA will enable work on the rehabilitation and improvement of rice paddies to continue.

(d) Madagascar

172. In 1978 Madagascar was severely affected by drought, and production of rice and other basic food-stuffs fell. Climatic conditions improved considerably last year. Figures compiled at the end of November 1979 show that in most agro-climatic zones precipitation was well above the average for the past 20 years.

173. Production in 1979 exceeded the level of the previous year for all agricultural products (grains, legumes, tubers and root crops). No requests for emergency aid were submitted by the Government.

174. The medium- and long-term recovery programmes launched by the Madagascar authorities are continuing. These programmes relate to: (a) increasing the production of rice and other food crops; (b) small-scale water engineering schemes; (c) advisory services on fertilizers and fertilizer production.

175. The most notable inputs of the United Nations system relate to agro-meteorological projects and the improvement of soils damaged by brush fires; donations of groundnut seed; and the financing of a mission in May 1979 to study the prospects of establishing food security stocks, which made proposals to the Government on projects for the evaluation of post-harvest losses of paddy and rice, the reduction of these losses at farmer and village level, and the establishment of a demonstration and extension programme.

176. In July 1979, a mission under the FAO seed improvement and development (SIDP) programme visited Madagascar. A national seed production project was agreed upon with the Government, its aim being to establish a national seed plan and to rehabilitate existing research centres, which will serve as gene banks.

(e) Togo

177. Togo did not experience drought in 1979, Rainfall was abundant and well distributed throughout the territory. Harvests of food and export products were good. The Government's main problem at present is inadequate storage capacity for harvests and the consequent losses.

178. The desertification control measures initiated after the drought which affected the country in 1977 are continuing. They cover reforestation campaigns, village water supply programmes, the construction of warehouses, and research on grains in semi-arid regions, carried out with finance from bilateral and multilateral sources.

IV. MEASURES TO COMBAT CROP PESTS

179. The Council will recall that in 1978 migratory locusts seriously threatened harvests in a number of East African countries. In the course of 1979 this threat has been gradually overcome through the work of national institutions, helped by subregional organizations established, with international assistance, to control and combat crop pests. These activities are co-ordinated by FAO and receive a financial contribution of \$495,000 from UNDP, together with a contribution of \$1 million set aside by the OPEC Special Fund to support the work of organizations combating crop pests.

180. Now that the 1978 crisis is over, it is important to keep the control and prevention machinery of national institutions and subregional organizations at an adequate level, not only with regard to locust control but also to control rodents, grain-eating birds and other crop pests.

181. With regard to action at the national level, some Governments have opted for using the resources made available to them by UNDP under their country IPFs.

182. Throughout the African region generally, UNDP is continuing to assist, through funds from the African regional programme, subregional organizations such as the International African Migratory Locust Organization (OICMA), the Joint African Anti-locust and Anti-Aviarian Organization (OCLALAV), the International Red Locust Control Organization for Central and Southern Africa (IRLCO-CSA) and the Desert Locust Control Organization for East Africa (DLCO-EA). UNDP is also financing a project to combat grain-eating birds in eastern Africa outside the framework of existing organizations. Allocations approved from UNDP regional funds in 1977-1981 amount to \$6 million.

183. In order to strengthen the machinery and resources for crop and harvest protection in the third programming cycle, UNDP intends to promote the adoption of a five-year global action programme, with inputs from UNDP, FAO and other sources of bilateral and multilateral aid, and from the African countries concerned.
