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**REPORT ON THE IMPLEMENTATION OF THE FOOD AND AGRICULTURAL
ASPECTS OF THE LAGOS PLAN OF ACTION (1980-1985)**

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INTRODUCTION

1. A dispassionate analysis and evaluation of the food and agricultural activities in Africa since the adoption of the Lagos Plan of Action (LPA) paint a picture characterized by mixed feelings. One side of the picture portrays countries striving to implement some aspects of the LPA in the food and agriculture sector particularly during the last two years of the LPA period partly aided by favourable circumstances such as abundant rainfall and continued donor assistance. The other side of the picture depicts those countries which had an apparent volition to implement the Plan, but were constrained to do so for various reasons with some of these being beyond their control.

2. This report seeks to look at both sides of the picture to help member countries gain an insight into the principal factors which facilitated or hindered the Plan's implementation during the period 1980-1985. It has been prepared in response to ECA's 1986-1987 programme budget, which requires, inter alia, an evaluation of the LPA's implementation in the food and agriculture sector within the biennium.

3. The report, which has been based on mission findings and on reviews of various publications, consists of five sections. Sections I and II provide introductory and background information. Section III discusses the actual performance of member countries in the sector with a particular focus on specific domains emphasized in the LPA as a basis for evaluating its implementation. Section IV attempts to shed light on those constraints encountered in the implementation of the Plan. The last section endeavours to draw some conclusions and to offer pragmatic recommendations intended to enhance member countries' capacity to improve the sector's performance with special attention to the LPA's objective of food self-sufficiency.

4. It should be pointed out at the outset that, in its effort to evaluate the Plan's implementation during the period under review, the report cites some activities picked up from different countries in the region merely for illustrative purposes. The report recognizes the fact that a number of useful activities were carried out in the region during the period. If these happen to be left out in the report, this must be either for the sake of brevity or for lack of factual data.

5. The report will have served the purpose it is intended for if it succeeds in offering a broad landscape of the salient constraints to the Plan's implementation and in proposing some remedial measures as a tool for carving out suitable strategies for future action in the context of Africa's Priority Programme for Economic Recovery (APPER), 1986-1990, adopted by the Assembly of Heads of State and Government of the Organization of African Unity (OAU) at its twenty-first ordinary session convened in Addis Ababa from 18 to 20 July 1985.

II. FOOD AND AGRICULTURAL ASPECTS OF THE LAGOS PLAN OF ACTION (LPA)

6. The food and agricultural aspects of the LPA embraced a broad range of issues. In the long run, these issues aimed at paving the road for the attainment of a self-reliant development in the sector and a regional integration through, among others, closer intercountry co-operation and trade.

In the short run, the issues pointed to the necessity for bringing about "immediate improvement in the food situation and to lay the foundations for the achievement of self-sufficiency in cereals and in livestock and fish products". 1/

7. In specific terms, the Plan contended that priority "action should be directed to securing a substantial reduction in food wastage, attaining a markedly higher degree of food security, and bringing about a large and sustained increase in the production of food, especially of tropical cereals, with due emphasis on the diversification of agricultural production". 1/ In the areas of food wastage or losses, the Plan underscored the importance of reducing these by at least 50 per cent towards the end of 1985 through the formulation of suitable policies and the improvement of related infrastructure. The measures proposed by the Plan in connection with food security included also the development of appropriate policies and the building-up of emergency reserves (10 per cent of total production) as well as the establishment and operation of early warning systems at national, subregional and regional levels.

8. Discussing the strategies for augmenting the production of food including livestock and fish, the Plan placed a particular accent on improved agricultural practices, incentive mechanisms for small farmers, flood control and drainage, mechanized farming (where appropriate), irrigation systems, soil and water conservation, and infrastructural facilities. In addition, it put a premium on the improvement or strengthening of services relating to range management, animal disease control, exploitation of fisheries resources, and the conservation and development of forests. In this regard, the Plan aimed at a 10 per cent growth in forest regeneration by 1985; a 10 per cent increase in forest reserves by the same year; and an annual rise in fish production of 1 million tons also by the same year. The Plan stressed the critical role played by research, training, extension and marketing services and called for their continued improvement at all levels.

9. The Plan rightly recognized the crying need for mobilizing massive resources to attain its objectives and for the establishment of implementation monitoring machineries at the national level. In this respect, it stated that the amount of resources required for executing its food and agricultural aspects during the first half of the decade (1980-1985) alone was in the region of \$US 22,000 million at 1979 prices with 50 per cent of this expected to come from domestic sources. It called upon both member countries and the donor community to provide the needed resources. It also advised member countries to define annual targets for food and agricultural development and to monitor and regularly report on the progress made towards attaining these targets.

III. IMPLEMENTATION OF THE LPA DURING THE PERIOD 1980-1985

(a) Food and agricultural development planning and policy strategies

(i) Development planning and policy strategies prior to the LPA period

10. Africa's development planning and policy strategies have gone through gradual phases of metamorphosis since the adoption of the LPA in 1980. Prior to the adoption of the LPA, the major focus of development plans and policies

was on the production of export crops such as coffee, cotton, groundnut, sugar and tea with very little attention to food products. In an apparent attempt to expand the production of cash crops and to increase export earnings, several countries in the region oriented their plans and policies to the strengthening of large-scale, private farming enterprises and parastatals. Côte d'Ivoire and Uganda, for example, laid considerable emphasis on the production of cash crops before the commencement of the LPA period 1980-1985 through incentive policies primarily geared to the needs of large-scale farmers and state trading agencies. In most countries, the overall tendency at the time was, of course, to expand the role of the state and of its institutional apparatus in the production of, and trade in, cash crops using existing infrastructure.

11. Even with such a pronounced bias towards the production of cash crops, the overall magnitude of resources allocated to agriculture was negligible. Gabon's 1976-1980 development plan, for instance, earmarked only 0.5 per cent of public investment to agriculture. During the 1975-1980 plan period, Nigeria allocated 6.5 per cent of public investment to the sector. The situation in Zambia was not any better either. The corresponding allocation was 5.3 per cent in 1975. As shown in table 1, 2/ during the period 1978-1982, the amount of resources set aside for the agriculture sector was very low except in a few countries like Kenya and the Gambia. What was disquieting was the fact that, out of such a negligible allocation of resources to the sector, a much larger portion was utilized to finance a growing number of projects producing export commodities in the form of higher producer prices, input subsidies and improved support services like research, extension, marketing and manpower development. Consequently, development planning and policy practices in several countries accorded little or no attention to the small farmers, who produced the bulk of food crops with inadequate resources and technology although the food situation was relatively better particularly in the 1960s.

(ii) Development planning and policy trends in the LPA period

12. Following the adoption of the LPA in 1980 and of the African Regional Food Plan (AFPLAN) in 1973 as well as the World Conference on Agrarian Reform and Rural Development (WCARRD) in 1979, the wind of change in development planning and policies started blowing in a slightly different direction. A number of countries in the region were awakening to the urgent need for improving the performance of the agricultural sector with a particular emphasis on the role of small farmers as a vehicle for expanding not only export crops but also food crops, mainly cereals, root crops, livestock and fish. Development plans and policies underwent gradual modifications to reflect the new mood with food self-sufficiency, rural development, self-reliance and inter-State co-operation being some of the major guiding mottos in the sector. For instance, the development plans of Mali (1981-1985), Nigeria (1981-1985), Rwanda (1981-1990) and Cameroon (1981-1986) mirrored the countries' growing concern about agricultural (rural) development with two of them (Mali and Cameroon) allocating to the sector 30 and 24 per cent respectively of their total public expenditure. In its 1981-1984 development plan, Côte d'Ivoire, unlike before, stressed the production of food crops. In its 1982-1983 budgetary allocation, Zimbabwe assigned 31 per cent to agricultural (rural)

2/ All tables (except those indicated in the text) are grouped in annex

development. Kenya raised the share of agriculture in total development outlay to 17.6 per cent for the period 1981-1982. Even the oil-rich Libyan Arab Jamahiriya embarked on a planning and policy strategy aimed at economic diversification with particular accent on agricultural development including land reclamation and exploitation of underground water.

13. From this it does not follow that the LPA had an immediate impact on the functioning of all countries' planning and policy machineries in the region. There were, admittedly, many countries which failed to adapt their development plans and policies to the Plan's objectives for various reasons including internal, political problems and resources constraints. In some of these countries there were senior officials who did not know about the existence of the LPA, much less implement it as late as 1983. Even among those countries which consciously or unconsciously adjusted their national plans and policies, there were some which overlooked important subsectors such as forestry development and conservation, food losses and food security. Despite the repeated calls by the United Nations General Assembly, the African Regional Food Plan, the LPA, the OAU summits, the FAO Regional Conferences and the ECA Conference of Ministers for a significant reduction of food losses and improvements in the food security systems, effective measures were not taken to improve the situation in many countries. This, coupled with the already low level of production, exposed the countries to horrifying malnutrition and to drought-induced famine in 1983-1984 on a scale which had never been witnessed in the region before.

14. The advent of the 1983-1984 relentless drought, which was one of the major causes of the region's poor food and agricultural performance, undermined ongoing efforts to implement the Plan's planning and policy objectives. In 1984, the drought hit 24 African countries and occasioned large-scale food crises. Food commodities became scarce, wells and water-points dried up and the vegetation cover in the drought-affected countries virtually disappeared. Worse still, there were tremendous human and livestock losses in some countries like Ethiopia, Chad, Botswana and the Sudan. Faced with this horrendous situation, most African countries had no choice but to fashion their development plans and policies to resolve their emergency problems. According to FAO, the salient areas on which the countries concentrated their efforts for this purpose were those in annex II.

15. The new emergency planning and policy strategies, while improving the countries' immediate food crisis, delayed actions designed to lay the foundation for the Plan's long-term objectives in many countries. As a result, the numerous planning and policy issues raised in the Plan still remained unresolved. This was amply manifested in (a) the low producer prices still paid to farmers; (b) limited credit facilities extended to them; (c) declining farm income they were having; ^{3/} (d) inefficient institutions they were using; (e) uneven distribution of wealth including land; (f) destruction of natural resources particularly forests; (g) countries' urban-based development approaches; and (h) rising rural-urban migration. Moreover, it was also reflected in the region's growing population; in the unsatisfactory technologies being employed by small farmers; and in the high priority still given to cash crops.

^{3/} In sub-Saharan Africa for example, per capita GDP during the years 1981-1984 declined by an average annual rate of 4.3 per cent. For more

16. It is encouraging to note, however, that in the last two years of the LPA period, a few countries embarked on planning and policy reforms. They did so out of a genuine desire to improve the food and agricultural situation. The most important areas in which the reforms were introduced embraced currency devaluation; raising producer prices; removal of import/export subsidies and the privatization of state-run institutions. Although these reform measures generated political unrest in some countries, they made positive contributions to the attainment of the Plan's objectives in countries such as Ghana, Malawi, Zimbabwe and Kenya. The reforms introduced in Ghana during the LPA period conformed to the policy packages prescribed by the IMF and helped to push up agricultural production. In the Gambia, for example, the task force which drew up an economic recovery programme in June 1985 recommended substantial increases in producer prices. In Egypt, Zimbabwe and the United Republic of Tanzania, similar measures were taken to encourage the private sector in a bid to attain food self-sufficiency. In Madagascar, many enterprises nationalized after the Malagasy revolution were privatized. In Nigeria, steps were taken to promote large-scale farming and to privatize inefficient state enterprises. In those countries such as Ethiopia and Angola, which found the IMF pill too bitter to swallow, planning and policy strategies were launched to attain the Plan's objectives through, inter alia, the strengthening of state farms and producer co-operatives. Ethiopia's ambitious \$US 14.5 billion 10-year perspective plan placed a heavy emphasis on food and agricultural production with an eye on irrigation development, forestry and soil conservation as well as rural development.

17. While the planning and policy framework looked like this at the national level, there were also some positive developments at a subregional and regional levels. The period saw the emergence of intergovernmental institutions such as the Economic Community of West African States (ECOWAS); the Preferential Trade Area (PTA) for Eastern and Southern African States; the Southern Africa Development Co-ordination Conference (SADCC); and the Economic Community of Central African States (ECCAS). These institutions provided fora at which collective policy measures were proposed on issues relating to the Plan's objectives in the food and agricultural sector. Notable among these were removal of trade barriers, liberalization of trade policies, periodic supply and demand analysis for certain agricultural commodities, and restriction of imports from sources outside the region. In addition, useful decisions were taken at various regional conferences such as the OAU summit, the ECA Conference of Ministers, the FAO Regional Conferences, and the World Food Council.

18. All these bodies agreed on the need for attaching a high priority to the development of the food and agriculture sector as a means of attaining food self-sufficiency. The FAO Regional Conference convened in Harare, Zimbabwe, in 1984 placed the responsibility for improving the food situation squarely in the hands of African Governments and called upon them to take drastic policy measures. The ECA Conference of Ministers renewed this call and resolved that the countries should ensure that the share of food and agriculture in public investment was raised to a level ranging from 20 to 25 per cent. From this it should be transparent that the decisions taken at the subregional and regional level on issues pertaining to the food and agricultural aspects of the LPA directly or indirectly helped to shape national planning and policy strategies.

(b) Food and agricultural production

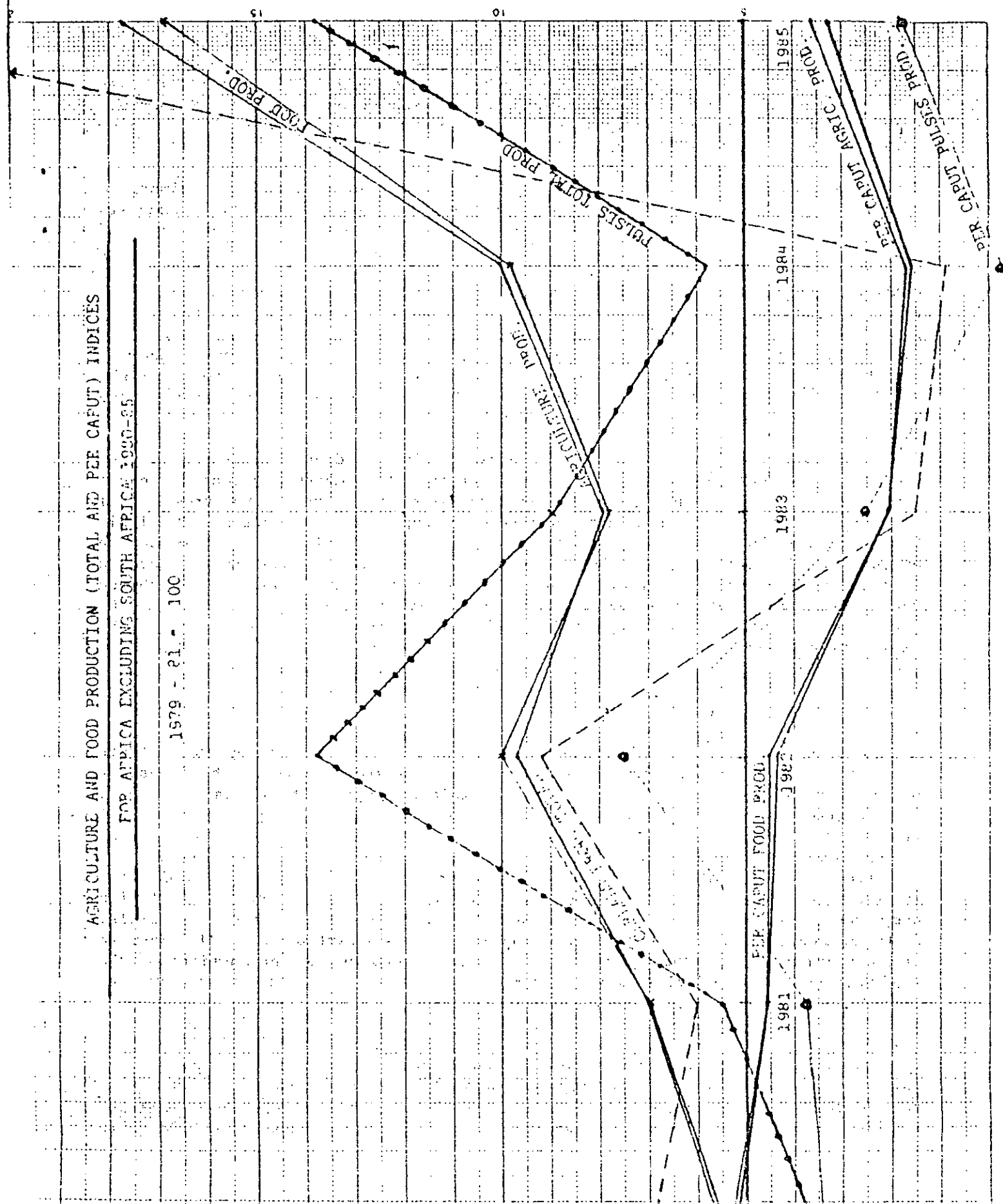
(i) Food and cash crops

19. Generally, it is widely believed that there is no dearth of food and agricultural policy pronouncements in Africa. During the LPA period, a vast array of development plans and policies were formulated in the food and agriculture sector, but all of them did not have a significant impact on production. As indicated in figure 1 and table 2 in the annex, overall food and agricultural production manifested an upward trend during the years 1980-1982 with cereals and pulses growing at a relatively higher rate. The following year this trend was reversed and production plummeted to a very low level reflecting the impact of the devastating drought. Partly owing to the emergency measures taken by these countries and to favourable weather conditions, the production performance started to show some improvement in 1984. In 1985, the sector performed remarkably well with both cereals and pulses, which had earlier dropped to extremely low levels, now rising at a much faster rate. The production of roots and tubers also increased during the period. In 1981, 88 million metric tons were produced in the region. In 1982, the production level exceeded 90 million metric tons. In the last two years of the LPA period (1984-1985), this increased further to 97 and 96 million metric tons respectively, indicating the relatively higher outputs produced in West Africa as well as in East and Southern Africa.

20. Although food and agricultural production exhibited a tendency to increase upwards during the period (save in 1983), per caput output declined, with this sliding further to its lowest level in 1984 implying the growing demographic pressure in the region. Of the 51 countries in the region, for example, 26 consumed (in 1984) staple food below their normal dietary requirements. In 1982-1983, the Sahelian countries produced only 88 per cent of their food requirements. Consequently, for most of the LPA period, a large number of countries were unable to feed themselves and had to increasingly rely on food imports and food aid. From table 3, it is evident that the flow of cereal food aid to Africa in the years 1979-1980 was 3.6 million metric tons (42 per cent of total aid). By the end of the years 1983-1984, this had already attained a peak of 5.1 million metric tons (52 per cent of total aid flow) thus evidencing the fact that, for several African countries, the Plan's objective of food self-sufficiency was illusive during the period. In some countries, the production of export crops either stagnated or even declined. In the Gambia, Nigeria and Sao Tome and Principe, for instance, export crops like cocoa and groundnuts did not perform well.

21. It should be conceded, however, that during the period, a few countries in the region endeavoured to push up food and agricultural production including fish, livestock and root crops. Among these there were countries such as Malawi, which could even export surplus crops to drought-prone, neighbouring countries. In Kenya, the 1985 maize harvest jumped to a level of 30 million bags compared to 26 million bags in 1984. This was far in excess of the country's food requirements. In Zimbabwe, the 1985 crop harvest was estimated at 2 million tons, 45 per cent of which was produced by small holders and peasants. The 1984 maize harvest was also substantial and exceeded that of the previous year by 22 per cent. In Algeria, the 1985 cereal production

Figure 1



increased considerably due, primarily, to a favourable weather. In Ghana, the 1984 agricultural production, including food, grew by 10 per cent. Two other countries which achieved an increase in average food production over the period 1981-1983 were Rwanda and Côte d'Ivoire. Compared to pre-LPA period, production in both countries showed an improvement of 26 and 54 per cent respectively, mainly due to efficient policies.

22. As indicated in table 4, the production of major export crops improved during the period. Over the years 1980-1984, the average annual changes in the production of tobacco, tea, sugar (raw), and cotton were positive. Of all these, the change in the production of tobacco (10.4 per cent) was substantial followed by cotton seed (5.4 per cent). In 1984-1985, except cocoa beans and sisal, all the other crops performed well with coffee (21.2 per cent), tea (9.1 per cent), cotton lint (6.2 per cent), raw sugar (5.4 per cent) and groundnuts (5.9 per cent) manifesting a significant growth. This implies that in the first two or three years of the LPA period more emphasis was laid on food production while in the years 1984-1985, there was a slight shift to the production of cash crops with a view to increasing foreign exchange earnings as evidenced by the figures in table 5.

23. In Kenya, for instance, there was a growing tendency to bring a large tract of fertile land under cash crop production. In Zimbabwe, a record tobacco crop was harvested. In the Sudan, farmers gradually turned away from cereal production perhaps to grow more profitable crops such as cotton. In 1981, Chad produced 70,000 tons of cotton. By the end of 1984, its total cotton output had increased to 160,000 tons and this made the country the second largest cotton producer after Egypt. In the period 1983-1984, the combined raw cocoa output of Cameroon, Ghana, Côte d'Ivoire and Nigeria was 793,000 metric tons and this rose to 1.031 million metric tons a year later. The implication of this on the countries' long-term capacity to realize the Plan's food self-sufficiency objectives is obvious.

(ii) Livestock and fish

24. The production of livestock and fish also followed the same growth pattern as that of food and cash crops. The average annual growth rate of the livestock population, which consisted of cattle, buffaloes, goats, sheep, camels, pigs, horses and chickens, was estimated at 1.3 per cent over the period 1980-1985 (table 6). Considerable variations were observed in terms of periods, animal categories and subregions. Throughout the LPA period the distribution of the livestock population was skewed in favour of cattle and small ruminants. In 1985, for instance, about 74 per cent of the total livestock population comprised bovine, 7 per cent sheep, 6.6 per cent goats and 6.5 per cent camels. A large segment of the livestock population was concentrated in the Eastern and Southern African subregion. The total indigenous meat production in the region stood at 6 million metric tons in 1985 and was rising at an average annual rate of 3 per cent over the same period.

25. Although livestock production was relatively high in Eastern and Southern Africa, the performance of the other subregions was also comparable. This was particularly true of the West and North African subregions. For instance, the North African subregion produced 57 million sheep in 1980 and 62 million in 1985 compared to 47 and 50 million produced by the Eastern and Southern

African subregion. The West African subregion produced in the same years 51 and 53 million goats compared to 57 and 60 million produced in the Eastern and Southern African subregion respectively. The Central, West and Southern African subregions produced a growing number of chicken over the same period.

26. The performance of individual countries was also reasonably encouraging. In Zimbabwe, for instance, the Government spent Z\$ 2.2 million on a fence-building programme so as to control a foot-and-mouth disease by separating vaccinated from non-vaccinated cattle. In Nigeria, priority attention was given to the production of poultry, beef, pig and dairy products. In Egypt, a project was launched near Sohag for the production of chickens. In efforts to expand livestock production, the countries of the region continued to focus their activities on the control of animal diseases such as rinderpest and trypanosomiasis, the conservation and development of pasture lands and the introduction of new breeds of livestock species.

27. Total fish catch in the region also manifested a positive trend during the period registering an annual growth rate of 1.4 per cent in 1981-1984. By 1984, it had reached 3.4 million tons. The overall fish output was believed to have declined in 1985 mainly due to a downward revision of Nigeria's production statistics. The present level of production was only a third of the region's potential, which is as high as 10 million tons. A large portion (43.8 per cent) of this came from those countries located near large bodies of water such as Lake Victoria and Lake Chad as well as from those countries bordering seas and rivers. As indicated in annex III, the most important producers were Egypt, Morocco, Ghana, Nigeria, Senegal, Angola and the United Republic of Tanzania. These and other countries in the region launched fisheries development projects.

28. In Senegal, steps were taken to assist small-scale fishermen to improve fish production through the provision of various equipment like motors and nets and of credit facilities. In the United Republic of Tanzania, fishing ventures and surveillance were introduced along with training programmes. In Egypt, activities were initiated to ensure the protection of endangered species in the Red Sea. In Sierra Leone, an agreement was negotiated with the Soviet Union so that the latter could increase fish production with 12 per cent of the harvest to be provided to the country. In Mauritania, an expansion of the fisheries sector was embarked on and some success was scored in increasing catches although these constituted a fraction of the country's potential. In Kenya, a project experimenting on the production of tilapia nilotica mixed with Chinese carp and local species became operational. In Guinea, a US firm "Universal Marine Shark Products" concluded an agreement whereby it could catch and process fish such as shark, shrimps and lobster. In Madagascar, two joint ventures (SOPEBO and SOMAPECHE) were engaged in expanding fish production by, among other things, strengthening existing fishing fleets.

(c) Farming technologies and practices

29. The farming technologies and practices utilized in the region during the period remained to be largely inadequate. They stemmed basically from three kinds of energy sources. These were human, animal and mechanical sources. Practically 81 per cent of the farmer power came from human efforts. The

remaining energy sources were draught animals (16 per cent) and mechanization (3 per cent). This being the case, the bulk of the region's farming activities were carried out with poor technologies, involving animal energy and weak manual labour largely made up of old men, women and children. The little mechanized farming activities performed in the region was principally geared to the needs of large-scale, private or state-run farms producing export commodities which, in some countries, included cereals such as maize.

30. The types of agricultural machinery and implements used on these farms consisted of tractors, combine harvesters, harrows, threshers, drillers, mechanical pumps and reapers. Most of these had to be imported from abroad. In a few countries, however, efforts were made either to produce some tractors or to have used ones rehabilitated locally. Examples of these countries were Algeria, Egypt, Nigeria, Zimbabwe and Malawi. In Nigeria, for example, there were three plants producing tractors for local use. These were located at Abuja, Kano and Bauchi. The plant at Abuja was established in 1984 with a capacity of 8,000 units and an initial target of 2,000 tractors annually. In Zimbabwe, a local company produced a 45-horse power tractor considered ideal for small-scale farming. In those countries like Malawi, Mozambique and Uganda, used tractors were either rehabilitated or hired.

31. The simple implements employed by small farmers included ploughs, hoes, sickles, harnesses and yokes. Although these could be produced locally in a large number of African countries, they were unsuitable for extensive farming or did not meet farmers requirements in terms of design and number. With this in view, sporadic efforts were made in the region to improve farming practices. In Kenya, a high-comfort harness was produced for use on donkeys which could replace the ox as a much stronger draught power particularly in periods of drought. The International Livestock Centre for Africa (ILCA) developed a single-ox system in 1983 and this was adopted rapidly in countries like Ethiopia. It proved extremely beneficial to resource-poor farmers who could not afford to have an adequate number of oxen for cultivating their land.

(d) Conservation and development of forestry resources

32. The production of forestry products at the beginning of the LPA period (1981) was estimated at some 430 million cubic metres. Of this, 41 million cubic metres constituted round wood (logs, veneers, pitrops, etc.) for industrial use and the other 389 million cubic metres included firewood and charcoal. By 1983, the forestry subsector yielded 443 million cubic metres. A significant component of this was industrial roundwood. Table 7 below shows the evolution of forestry production over the period 1980-1983.

33. Over the period 1983-1984, roundwood production increased by about 2.2 per cent, to over 423 million cubic metres. Out of this, Nigeria alone produced 92 million cubic metres. The production of industrial roundwood stood at 52.6 million cubic metres (1.5 per cent less than that of 1983) while fuelwood and charcoal totalled 370 million cubic metres, 2.3 per cent up compared to the 1983 output. By the end of 1985, roundwood production was put at 413 million cubic metres. Practically 89 per cent of this was utilized as fuelwood and charcoal. The production of sawnwood and sleepers for the same year was estimated at 7.9 million cubic metres.

Table 7: Evolution of forestry production, 1980-1983

Forestry products	Unit	1980	1983	Average annual increase % (1980-1983)
Sawn wood and sleepers	Thousand cubic metres	6,235	6,355	0.6
Wood-based panels	Dam	940	1,038	3.3
Wood pulp	Million tons	790	833	1.8
Paper and paper board	Thousand tons	488	490	0.1

Source: FAO computer print-outs (October 1984).

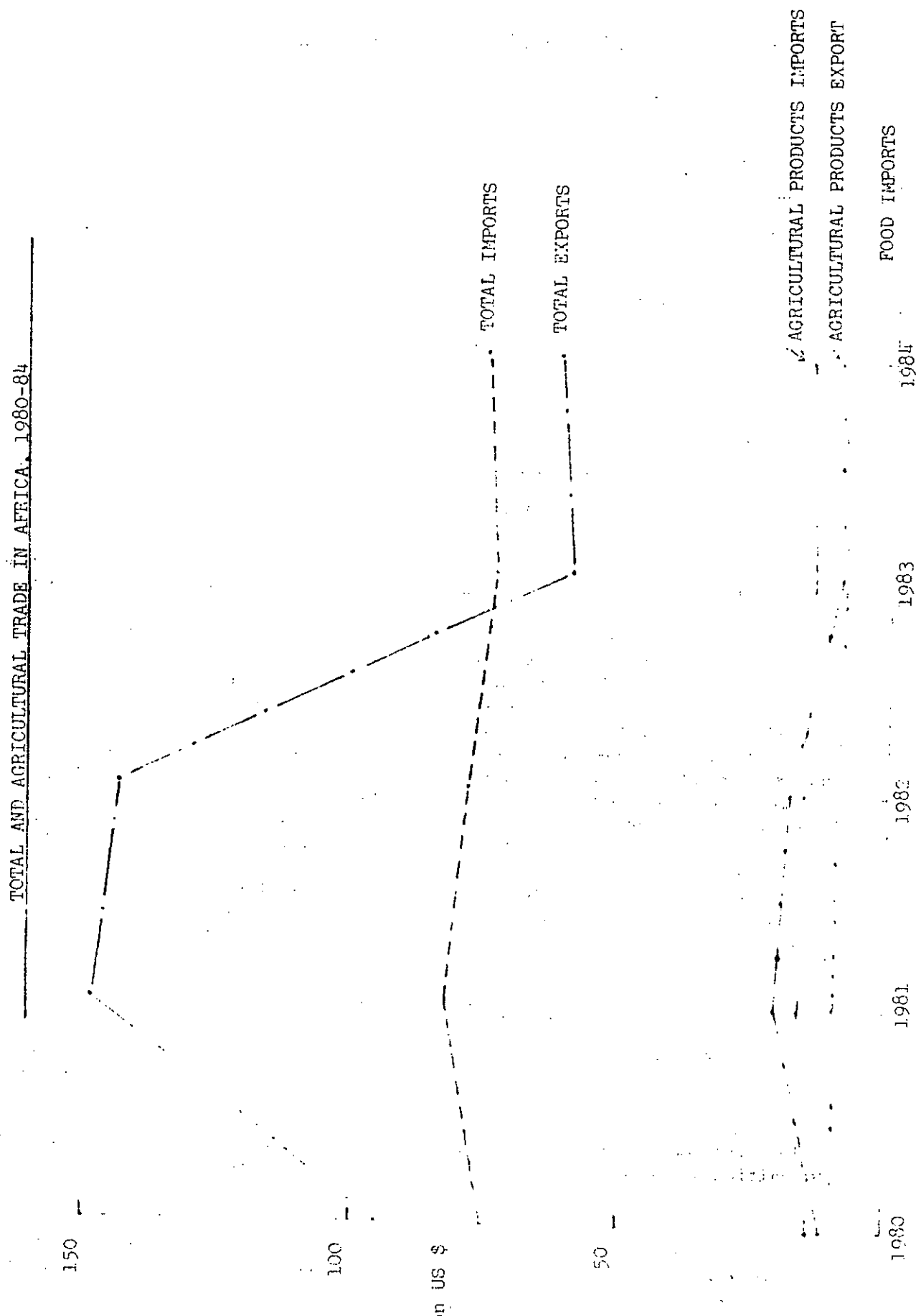
34. During the period 1980-1985, a good number of countries endeavoured to carry out afforestation programmes. It is understood that the sub-Saharan plantations expanded at a rate of 100,000 hectares annually. While this was equivalent to 2.6 per cent of the area deforested in the region, it was, no doubt, higher than the rate of afforestation aimed at in the Lagos Plan of Action. Apart from Nigeria, other countries contributed to the region's efforts to conserve and expand forestry resources. In Cape Verde, for example, activities were undertaken to expand and conserve forestry resources including soil and water by building dry stone dykes, terraces and dams. By 1985, the country had planted about 6 million trees. In Kenya, a women's group developed an energy-saving stove known as "Kumi tatu", which required only 30 per cent less firewood than an open fire. In Sierra Leone, loans were acquired from the German Government to finance the rehabilitation of the forest industry. In Ethiopia, increased attention was paid to forestry development given the rising demand for fuel and the critically low level of forest reserves. ^{4/} Although, as indicated above, continuing efforts were made to develop the forestry subsector, the rate of deforestation was alarming for various reasons discussed in section IV.

(e) Trade in food and agricultural commodities

35. The configuration of food and agricultural trade in the region manifested more or less a similar trend throughout the period. As indicated in figure 2, the amount of agricultural commodities exported tended to climb upwards between the years 1980 and 1981, after which it commenced descending until it hit its lowest level in 1983. Over the period 1983-1984, the volume of commodities exported maintained the same level implying the region's inability

^{4/} It has been estimated that, 50 years ago, some 60 per cent of land in Ethiopia was covered with forests, but today only 3.6 per cent is under forest cover.

Figure 2



to expand the subsector further due, partly, to the impact of the drought and to foreign exchange constraints. Given favourable weather in the region, and the relatively increased emphasis placed on cash crops in the second half of the Plan period, the volume of products exported in 1985 could be slightly higher than that of the previous year.

36. Figure 2 also shows that imports of agricultural products remained basically unchanged during the period. So was the importation of food, which constituted practically two-thirds of total agricultural imports. An important element worth noting is that, despite the drought, food imports did not increase during the years 1983-1984, suggesting the region's heavy reliance on food aid and its inability to finance a growing importation of food products. From table 8, it is evident that the region's food imports mainly consisted of dairy products and cereals particularly wheat and rice, the consumption of which swelled over the years partly because of changing tastes, government subsidies, and a rapid growth of the region's urban population.

37. The major food and agricultural products traded were coffee, tea, cotton, tobacco, livestock products and cereals like maize as well as vegetables and fruits such as banana. Some fisheries and forestry products were also traded. Agricultural inputs (fertilizer, pesticides, etc.) and processed products (palm oil, cotton textiles, refined sugar, etc.) were exported or imported in the region. Table 9 offers, for instance, an idea of the types of forestry products traded during the years 1983-1984.

Table 9: Trade in forestry products (in million tons)

Forestry products	<u>Imports</u>		<u>Exports</u>	
	1983	1984	1983	1984
Paper and paper board	0.98	0.96	0.16	0.17
Wood pulp	0.44	0.45	0.55	0.55
Wood-based panels	0.62	0.61	0.31	0.40

Source: ECA, Survey of Economic and Social Conditions in Africa, 1984-1985.

38. In Gabon, for example, 15,000 cubic metres of log were sold to South Korea during the years 1982-1983. In the same period, Côte d'Ivoire exported 6,000 cubic metres to South Korea. Burkina Faso received 371.7 tons of salt from Ghana in exchange for 112 head of cattle under a barter agreement concluded between the two countries. Chad received \$11.5 million from cotton exports in 1984 compared to \$6.72 million the previous year. Senegal exported to Nigeria, for the first time, fertilizer (diammonium phosphate) produced in the country. Tunisia exported to the EEC countries 70,000 tons of olive oil in the years 1984-1985. In 1983-1984, Zimbabwe exported 120 million kg of tobacco to various countries in and outside the region and received \$350 million. In 1984-1985, Malawi exported 120,000 tons of maize to Zambia, 30,000 tons to Zimbabwe and 50,000 tons to Mozambique.

39. Despite some successes here and there, most countries in the region were importers of agricultural products, mainly food, from different sources with those outside the region dominating the agricultural trade picture. As a result, in spite of the Plan's call for increased trade among countries of the region and the existence of economic groupings such as the Preferential Trade Area (PTA) and the Economic Community of West African States (ECOWAS), intercountry trade was still at its lowest level of about 4 per cent. The external trade balance in the region was positive in 1980 when exports amounted to \$US 10.7 billion and imports \$US 10.2 billion. In the following year the corresponding figures were \$US 8.7 billion (exports) and \$US 11 billion (imports). In 1984, the region imported food and agricultural commodities valued at \$US 15.6 billion, which was higher than its export earnings by \$US5 billion. Of this, the import value of cereals alone stood at \$US5.6 billion with wheat and rice being principal import crops as stated above. With export earnings declining and per capita food production decreasing, the region had no choice but to engulf itself into an endless and growing debt crisis.

(f) Reduction of food losses

40. The United Nations General Assembly in 1975 and the Lagos Plan of Action in 1980 stressed the need for reducing food losses by at least 50 per cent towards the end of 1985. Despite this, substantial food losses continued to occur during the Plan period. Enlightened estimates put post-harvest food waste and losses in Africa at a magnitude ranging from 10 per cent in arid areas to 40 per cent in humid areas, with this tending to be much higher for certain perishable commodities including livestock and fish. Recent data collected from Madagascar show that livestock waste and losses (particularly bovine) at slaughtering points fell within a range of 40 to 45 per cent while fish losses were estimated at 36 to 45 per cent in boats and at landing points. In Mozambique, for certain types of fish, the losses might reach even 75 per cent at the same points. In Chad, losses of dried fish amounted to 15 to 20 per cent and these tended to be larger in the stages of transport, handling and processing.

41. Food waste and losses were caused by a number of factors. Chief among these were rodents, insects, fungi, birds, wild animals and bacteria. The extent of damage caused by these differed in different countries. In Morocco, for example, birds occasioned losses to crops estimated at 20 per cent. In some parts of the United Republic of Tanzania, wild pigs caused losses as high as 100 per cent. In Ethiopia, cereals (sorghum) stored in underground pits suffered weight losses estimated at 15.4 per cent. Although quantitative measurements of food losses were not available, table 10 below offers an idea of the losses suffered in the region.

42. Several measures were taken during the period to reduce food losses. Some of these were preventive while others were curative. The curative methods included the application of contact chemicals and fumigants such as dusts, wellable powder, malathion, carbon bi-sulphide, lindage, chlorpyrifos, dichlorvos and fenthothron. Apart from these, other control measures which were taken included mechanical (rat traps, baits), traditional (local herbs, grasses, sand or mineral dusts) and biological methods using such natural enemies or predators as mites and cats. The preventive methods consisted

of those like the use of convenient sacks, the siting and construction of suitable storage structures, and the rapid movement of produce between points of harvesting and those of consumption including improvements in related infrastructure and policies. For a variety of reasons mentioned in section IV, many of the control measures applied in the region during the Plan period were inadequate and did not help to bring about a significant achievement in the reduction of food losses.

Table 10: Broad magnitudes of losses for major food commodities in selected African countries

Selected African countries	Estimated percentage losses
Botswana	20
Burkina Faso	25
Chad	10
Cameroon	6
Ethiopia	20-30
Ghana	10-30
Kenya	16-20
Madagascar	30
Morocco	5-10
Somalia	25
Sudan	10
Swaziland	8-23
Tunisia	7-14
Zambia	10-20

Source: Computed from fragmentary loss estimates made by various experts.

(g) Promotion of food security

43. According to the World Bank, food security is defined as "access by all people at all times to enough food for an active, healthy life. Its essential elements are the availability of food and the ability to acquire it." ^{5/} In a broader sense, food security embraces the areas of production. In a narrow sense, it confines itself to agricultural marketing, storage, transport, processing, information systems, and monitoring the food situation including production at all levels. Its target groups comprise: (a) people in areas unfavourable for food production and poorly served in terms of food, transport and marketing from other areas; (b) people too poor to obtain adequate food, particularly the urban unemployed, casual labourers and landless agricultural workers; and (c) pregnant and lactative women, their babies and young children (who have special nutritional needs) as well as nomads.

^{5/} World Bank, A World Bank Policy Study, Poverty and Hunger, Issues and Options for Food Security in Developing Countries, February 1986.

44. It was with this in view that the Plan stated that African countries should build up food reserves equivalent to 10 per cent of food production in order to ensure adequate food security. Although in many countries the lot of the above target groups did not improve in terms of food security objectives, useful activities were carried out in the region at national and regional levels. Information maintained by the FAO food reserve monitoring system "shows that 28 countries" ^{6/} formulated explicit, strategic reserve policies. In addition, "17 countries" were known to maintain stocks exclusively for reserve. Eleven other countries maintained "stocks for both reserve and working purposes". ^{6/}

45. In Nigeria, for instance, bold schemes for storage facilities particularly for strategic grain reserves and for farm-to-market roads were launched. In the Sudan, a bumper stock of 25,000 tons of sorghum and millet was set aside following the 1985 grain harvest. In the United Republic of Tanzania, the construction of go-downs was underway under the country's strategic reserve programme. The go-down located in Arusha had a capacity of 20,000 tons. Two giant silos also located at Arusha had a capacity of 28,000 tons, but they were out of commission due to their poor state of disrepair. In Malawi, three big silos were planned for construction and, if completed, would have a total capacity of 900,000 tons, enough to meet a three-year food requirement.

46. The recent food crisis revealed the vitality of timely and reliable information for the effective management of available food supplies, especially in countries susceptible to drought. As a result, measures were taken in some countries with the assistance of FAO to establish and strengthen early-warning and information systems. According to FAO, there were seven FAO-designed national early warning systems in operation. Nine were expected to be operational shortly while seven national projects were under preparation. Eight of the national projects were in West Africa, six in Eastern Africa and nine in Southern Africa. Increased emphasis was also placed on the creation of regional early-warning systems. Measures were taken to create such a system for the countries of the Southern Africa Development Co-ordination Conference (SADCC). Similar measures were also taken to support programmes organized by the Permanent Inter-State Committee for Drought Control in the Sahel (CILSS) in West Africa. Despite these measures, there remained several drought-prone countries in the region which did not have effective national early-warning systems in operation or under preparation.

(h) Agricultural supporting services

47. As stated earlier on, the realization of the Plan's objectives also hinged upon overall improvements in agricultural supporting services, such as the application of drought-resistant, yield-increasing seed varieties; breeding of selected livestock species; provision of fertilizers and pesticides; marketing of agricultural products; granting of agricultural credits; strengthening of linkages between research and extension; and the building up of requisite capabilities. Some efforts were made to improve these services.

^{6/} ECA, Evaluation of the implementation of the Regional Food Plan (1978-1984) and a preliminary assessment of the food and agricultural aspects of the Lagos Plan of Action, February 1985.

48. In the Gambia, for instance, two new disease-resistant, fertilizer-responsive, yield-increasing rice varieties known as IR34-450-1 and BG-90-2 imported from the Philippines and Sri Lanka respectively were used and yielded 7 to 9 tons per hectare. In Kenya, a pilot fish-farming and development centre in Kisumu commenced research work on the production of tilapia nilotica mixed with Chinese carp and local species. In Cameroon, research was conducted on rice resistant to certain types of bacteria. In the United Republic of Tanzania, 30 varieties of rice seeds were tested by the Kilimanjaro Agricultural Development Centre (KADC), out of which six were recommended for the Lower Moshi Irrigation Project (LMIP).

49. At subregional and regional levels, some research activities were also carried out. Institutions such as the West African Rice Development Association (WARDA) and the International Institute for Tropical Agriculture (IITA) developed drought-resistant, yield-increasing varieties of cereals and root crops well adapted to different ecological conditions in Africa. The International Potato Centre (CIP), in co-operation with national institutions, released potato varieties expected to increase yield in Burundi, Ethiopia, Kenya and Rwanda. The International Livestock Centre for Africa (ILCA), working with the International Centre for Insect Physiology and Ecology (ICIPE), developed a research network on trypano-tolerant cattle, sheep and goats. Moreover, ECA, in collaboration with FAO, continued to make preparations for the establishment of a maize research network for the countries of the Eastern and Southern African subregion.

50. Analogous activities were also performed to improve other supporting services. In Kenya, for example, efforts were made to deploy an increasing number of extension staff in the field to advise farmers on the application of better farming systems. In Zimbabwe, the Department of Agricultural, Technical and Extension Services (AGRITES) had about 1,577 extension officers and most of them live among farmers in rural areas. In a few countries, particularly in the last two years of the Plan period, increased attempts were made to reform and improve marketing operations. In Nigeria, for example, there was a growing tendency to reform or even dismantle marketing boards with a view to enhancing the effectiveness of marketing systems and practices. In Senegal and Madagascar, a similar trend was observed. In Egypt, Tunisia and Cameroon, several projects were launched to expand storage structures. In Botswana, preparations were underway to construct a large abattoir. In Madagascar, seedlings and credit services were extended to farmers as stimulants to increased production. In southern Africa, projects were embarked on to rehabilitate the railway line in the area known as the "Beira Corridor" extending over a distance of 400 km from Mutare to Beira. In Sierra Leone, Mauritania, Morocco and Tunisia, there were schemes for improving fishing facilities including boats, cold stores and refrigerated vehicles.

51. In the areas of agricultural training, some activities were also undertaken during the Plan period. In Botswana, for example, preparations were underway for the national university to ameliorate the coverage and content of its training programme in agriculture, including animal health, meat inspection and range management. In Zambia, the Palabana Training Institute was envisaging to develop better training programmes for dairy farming. In Egypt, a centre was set up at Beni Suef for training mechanics in the repair and maintenance of tractors. In Mozambique, 400 mechanics received training also in the repair and maintenance of agricultural machineries.

IV. IMPEDIMENTS TO THE LAGOS PLAN OF ACTION'S IMPLEMENTATION

52. In section II, attempts have been made to provide a blueprint of the Plan's broad objectives as a yardstick to gauge the region's performance in the sector over the period 1980-1985. Despite the efforts made by some countries to improve the overall performance of the sector, most of the Plan's objectives were not realized. The principal impediments to the attainment of the Plan's objectives are briefly discussed below:

(a) Inadequate resources

53. A vital factor behind the region's inability to achieve the Plan's objective is the inadequacy of resources. Over the period 1980-1985, the region's gross domestic product (GDP) dropped by 16 per cent while investment requirements of the sector escalated in terms of capital and recurrent costs. In relative terms, the amount of external resource flows to the sector tended to increase, but were not matched by commensurate domestic resource allocations. In the years 1983-1984, none of the 17 countries shown in table 11 allocated more than 17 per cent of total government spending to agriculture. In fact, most of them spent only 10 per cent or less on the sector. Worse still, even the little resources so allocated were not released on time. As a result, several countries had to involve themselves in a mounting debt crisis as they could not finance their agricultural development programmes. In Nigeria, for example, the Agricultural Development Projects (ADPs) suffered from severe resource constraints in 1984. The fund provided by the Federal Government was only 16 per cent of their budget.

(b) Poor infrastructural facilities

54. Another obstacle was the poor infrastructure in the region such as storage structures, roads, railways, abattoirs, laboratories, training centres and research institutions. In many countries, these facilities proved to be inadequate and encountered serious difficulties such as the lack of spare parts, equipment, cold stores, refrigerated vehicles, fuel and construction materials. In the United Republic of Tanzania, two giant silos were in a poor state of disrepair owing to a shortage of cement and skilled manpower. In Zambia, roads developed deep potholes due to heavy rains. One province alone required 7 million Kwacha to repair 450 roads leading to rural depots from where maize should be picked up.

(c) Lack of skilled manpower

55. The lack of skilled manpower in many of the fields discussed above was also a severe constraint to the implementation of the Plan's objectives. This was particularly true of such technical areas as project formulation and implementation; irrigation development; post-harvest technologies; operation of early-warning systems; conservation and expansion of forestry resources; exploitation of fisheries; and control of animal diseases. In Mozambique, for example, there were 19 local university graduates in forestry, but none of them had a training in the wildlife sector. The United Republic of Tanzania had 26 graduates in forestry research, but there was no one skilled in tree breeding. In Egypt, there was a chronic shortage of agricultural machinists.

In those countries where there was a trained manpower a grave problem was one of "brain drain". A growing number of skilled people ran away to the developed countries and to the Gulf States in search of better employment opportunities and this aggravated the situation in the region.

(d) Absence of suitable policies

56. As stated earlier, there was not any scarcity of policy pronouncements in Africa. A broad range of policies, legislations and decrees were issued in practically all the fields referred to in section III, but few of them were effectively implemented. Even among them so implemented, not all of them were in line with the Plan's objectives. As a result, inadequate policy attention continued to be accorded to small farmers in terms of resource allocation, the provision of agricultural requisites and the availability of consumable commodities. In some cases, more emphasis was still laid on cash crops as opposed to food crops. In others, the role of the public sector over-expanded with inefficient parastatals monopolizing marketing operations. Despite periodic price hikes, what was paid to farmers for their produce proved inadequate. In many countries, anachronistic land tenure systems prevailed and these offered to small farmers neither security nor incentives to push up food production. Apart from this, certain critical areas such as research, food losses training and forestry development did not receive the policy attention they merited.

(e) Inappropriate agricultural practices

57. It should be evident from section III that the performance of food and agricultural activities in most African countries relied heavily on poor technologies or practices mainly involving animal and human labour. In a few countries, efforts were made to mechanize these activities, but the lack of spare parts, skilled manpower and foreign exchange occasioned considerable difficulties. Serious problems were also encountered in connection with the already backward technologies or practices. These included the lack of animals for traction; the shortage of basic tools such as hoes; and the prevalence of diseases like trypanosomiasis and schistosomiasis. The practice of selecting crop and animal species also contributed to the sector's poor performance. According to a report by a team of Dutch scientists from Leiden University, for instance, the introduction of the Nile Perch (*lates niloticus*) into Lake Victoria in the early 1960s resulted in the extinction of several fish species upon which were based the income-earning capacity and employment-generation opportunities of small-scale fishermen.

(f) Mismanagement of natural resources particularly forests

58. The fashion in which the region's resources were exploited and managed determined the extent to which the Plan's objectives were attained. In a good number of countries, land holdings fragmented as population increased so that each small farmer had less and less land to cultivate. Over-grazing, shifting cultivation, over-exploitation, bush fires and wood gathering for fuel and construction purposes led to depletion of forests, disappearance of wild animals and soil degradation. This, coupled with calamitous events such as drought, diseases, floods, pest infestation and cyclones stalled ongoing activities to improve the sector's performance. The recent drought, for

example, cost the nine SADC countries at least 1 billion Zimbabwean dollars in lost revenue from crops and cattle. The amount of land under forest cover in Kenya dropped to a low level of 6 per cent while that of Ethiopia was even worse, 3.6 per cent. In Mozambique, floods caused a heavy damage in four provinces. All in all, some 14,380 hectares of crops were inundated by the Pungue and Zambezi rivers.

(g) Rising population growth

59. The region's population grew at an average rate of 3 per cent during the Plan period while food production increased at a low rate not exceeding 1.7 per cent. This was one of the principal reasons why many of the Plan's objectives were not realized. More so in the areas of food self-sufficiency, food security and the conservation and development of natural resources including land, water and forests. Perhaps a corollary of the population problem was the swelling rural/urban migration, which diminished the already weak agricultural labour force in the region and inflated the urban demand for the importation of food, particularly wheat, rice and processed products such as canned meat and fish. In Zimbabwe, for instance, about 40 to 45 per cent of the country's population lived in urban areas. Kenya, Nigeria, Egypt and Rwanda were among those densely populated countries in relation to cultivable land. In Rwanda, the population density was over 440 people/km² and the implication of this on land-use systems is obvious.

(h) Increased emphasis on national interests

60. Despite some attempts to forge intercountry co-operation in trade and in certain aspects of agricultural development, the Plan period was characterized by a relatively more emphasis on national interests as opposed to subregional or regional gains. Tariff and non-tariff barriers to trade still prevailed thus impeding the growth of intra- and interregional trade. Major food and agricultural activities such as research, manpower development, plant protection, animal disease control, food security and combating the impacts of drought remained to be largely the preoccupation of individual States. Intergovernmental institutions such as the Mano River Union (MRU), the Economic Community of West African States (ECOWAS) and even the Organization of African Unity (OAU) suffered from periodic financial crisis due to the reluctance or inability of member countries to pay their dues on time. Some of these institutions were so badly hit that they reached a point of disintegration. This state of affairs was an outright negation of the spirit and intent of the Lagos Plan of Action and undermined the region's efforts to promote inter-State co-operation, which was one of those crucial factors considered as a sine qua non for the attainment of the Plan's objectives.

(i) Inexistence of clearly defined LPA-related targets

61. In most countries, agricultural development strategies tended to reflect at least some of the Plan's objectives. Nevertheless, this did not seem to be a result of conscious, well-thought-out measures based on clearly defined Plan-related targets. First of all, very few officials in the countries concerned knew about the Lagos Plan of Action and its specific targets in the food and agriculture sector. Even if they did, there was not any machinery at the national, subregional or regional levels charged with the sole

responsibility of defining periodic targets and of carrying out the required follow-up measures. Consequently, it was not easy for any of the countries to determine to what extent the Plan's targets were achieved during the period in clear terms.

(j) Hostile external economic climate

62. While the region's inability to achieve the Plan's objectives fully did not, in the main, stem from the external economic climate, the world economic recession was also a contributory factor. A prolonged decline in export prices, a persistent fall in the volume of agricultural commodities exported and the uncompetitiveness of these commodities on international markets constituted grave impediments to the region's efforts to raise export earnings and to finance the sector's development. As shown in table 12 below, the region's share in world exports decreased over the period 1961-1963 - 1982-1984 for all the major export commodities except tea, reflecting the good performance of the region's principal tea-exporting countries such as Kenya in the last two years of the Plan period.

Table 12: Africa's major agricultural exports as percentage share of world exports

Commodity	Percentage share		
	1961-1963	1969-1971	1982-1984
Cocoa	63.6	58.2	40.5
Coffee	25.0	28.4	21.9
Tea	8.1	14.2	19.4
Cotton (lint)	18.6	23.1	15.3
Tobacco	11.9	7.4	8.7
Rubber	6.5	6.7	4.5
Sugar	5.0	6.1	4.8
Vegetable oils, oil seeds and products (in oil equivalent)	24.1	13.3	2.7

Source: Atlas of African Agriculture, FAO, Rome, 1986.

63. External aid to the sector, though higher compared to domestic resource allocations, was not conducive to the realization of the Plan's objectives. As indicated in table 13 below, both total concessional and non-concessional commitments of official assistance (excluding technical assistance grants) exhibited a tendency to rise in the years 1981 and 1983. The commitments in the two years amounted to \$US 1,900 million. In 1980, 1982 and 1984, these commitments tended to be lower than those in the other two years, implying not only the inadequacy of external aid in relation to the region's requirements, but also its instability and unsuitability for the purpose of developing the sector on a sustained basis. The situation could be even more problematic if one were to consider the lag between commitments and actual disbursements.

Commitments of official assistance (excluding technical assistance grants) to narrow definition agriculture in developing countries of Africa (in millions of US dollars)

Commitments	1980	1981	1982	1983	1984
Total	1608.9	1905.2	1599.7	1913.7	1850.7
Concessional	1378.2	1406.9	1431.7	1147.8	1427.8
Non-concessional	230.8	498.3	168.0	765.9	422.9
Total	1608.9	1905.2	1599.7	1913.7	1850.7
Bilateral	774.3	871.9	1084.1	765.4	970.5
Multilateral	834.7	1033.3	515.6	1148.2	880.2
Concessional	1378.2	1406.9	1431.7	1147.8	1427.8
Bilateral	744.0	830.1	1066.9	727.4	922.8
Multilateral	634.2	576.9	364.8	420.4	505.0
Non-concessional	230.8	498.3	168.0	765.9	422.9
Bilateral	30.2	41.9	17.3	38.0	47.7
Multilateral	200.5	456.4	150.7	727.9	375.2

Source: FAO Computerized Data Bank on External Assistance to Agriculture, 1986.

Note: The above narrow definition of agriculture excludes forestry.

(1) Preoccupation with emergencies

64. The preoccupation of some countries with emergency-related activities was also a severe constraint on the implementation of the Plan's objectives. As outlined in annex II, these activities involved numerous tasks in the short and medium term. Examples of these were delivery of relief supplies; provision of agricultural inputs to affected farmers; restoration and utilization of traditional irrigation; up-grading and improving internal marketing

infrastructure; strengthening existing research and extension services; expansion and rehabilitation of rural water resources for human and livestock consumption; and resettlement of displaced people including refugees. In Ethiopia, for instance, of 49 development projects proposed by FAO for donor financing, "21 costing \$US 95 million were emergency projects". ^{7/} The implication of such activities on the region's ability to attain the Plan's objectives is too obvious to require further discussion.

V. CONCLUSIONS AND RECOMMENDATIONS

65. In the preceding sections, the report has attempted to draw a kind of balance sheet depicting the principal areas in which the countries of the region scored some successes and those in which they failed as regards the implementation of the Plan's objectives with brief analyses of the most significant impediments. The whole purpose of this exercise, and hence of the output on the Plan's implementation referred to in ECA's 1986-1987 programme budget, is to make it possible for member States to reappraise their activities in the Plan period against the Plan's specific targets as a basis for assessing their potential for implementing these within the framework of Africa's Priority Programme for Economic Recovery (APPER), 1986-1990. ^{7/} In this connection, the report would like to recommend that:

(a) Member countries re-examine critically the efforts they made to implement the Plan with a view to identifying areas of weaknesses and to drawing useful lessons for the future;

(b) These weaknesses, once identified, be remedied with a particular focus on policies, plans, resources allocation, manpower development, inter- and intraregional co-operation as well as the conservation and expansion of natural resources especially land, water and forests;

(c) A high priority attention be accorded to the Plan's goals of food self-sufficiency, food losses and food security with emphasis on the role of small farmers at national, subregional and regional levels;

(d) Specific, annual targets and implementation monitoring mechanisms be established in future strategies to achieve APPER's objectives.

66. Finally, it should be conceded that the region's capacity to implement the Plan's objectives in the sector as embodied in APPER will hinge, to a large extent, upon the determined measures it will take to overcome most, if not all, of the aforementioned impediments. It is hoped that the adoption of the recommendations advanced in the report will help to fashion suitable strategies for this purpose.

^{7/} African Business, May 1985, p.31.

Annex I

Table 1: Share of agriculture in total public expenditure and total GDP,
13 African countries, average 1978-1982

Country	Agriculture as % of		Ratio of expenditure to GDP %
	Total expenditure	Total GDP	
Algeria	5.9	6.1	0.92
Benin	9.0	47.8	0.19
Cameroon	8.8	31.9	0.28
Central African Republic	5.6	35.7	0.16
Gabon	2.1	5.4	0.39
The Gambia	13.6	31.8	0.43
Kenya	15.5	36.4	0.43
Liberia	10.0	34.6	0.29
Mali	12.4	41.4	0.30
Mauritius	10.4	12.7	0.82
Morocco	7.0	17.3	0.40
Swaziland	11.7	n.a.	n.a.
Tanzania, United Republic of	9.3	53.2	0.17

Source: FAO survey on public expenditures on agriculture, Rome.

Table 2: Food crops production, 1981-1985 (1000 metric tons)

	1981	1982	1983	1984	1985
<u>Cereals</u>					
North Africa	18,203	19,003	17,130	16,311	23,031
Central Africa	1,361	1,461	1,562	1,430	1,874
Eastern and Southern Africa	21,283	22,207	20,016	19,515	23,729
Great Lakes	1,727	1,733	1,790	1,746	1,930
West Africa	18,761	18,123	15,213	16,596	19,523
All subregions	61,333	62,523	55,711	56,097	70,088
Africa excluding South Africa	61,439	62,640	55,820	56,209	70,202
<u>Roots and tubers</u>					
North Africa	2,840	2,882	2,962	3,138	3,280
Central Africa	4,863	4,954	4,656	4,851	4,889
Eastern and Southern Africa	22,207	22,393	23,484	24,081	24,159
Great Lakes	16,598	17,823	18,364	18,645	18,726
West Africa	41,388	43,633	39,645	46,345	44,483
All subregions	87,896	91,685	89,110	97,060	95,536
Africa excluding South Africa	88,117	91,905	89,340	97,292	95,772

	1981	1982	1983	1984	1985
<u>Pulses</u>					
North Africa	633	787	895	884	976
Central Africa	177	181	184	185	187
Eastern and Southern Africa	2,246	2,518	2,149	2,139	2,195
Great Lakes	689	693	736	615	650
West Africa	1,603	1,647	1,537	1,588	1,589
All subregions	5,355	5,826	5,500	5,410	5,597
Africa excluding South Africa	5,362	5,833	5,507	5,417	5,604
<u>Oil crops</u>					
North Africa	787	732	317	685	796
Central Africa	289	305	286	285	301
Eastern and Southern Africa	684	693	685	699	713
Great Lakes	358	356	354	363	362
West Africa	2,354	2,469	2,214	2,328	2,411
All subregions	4,472	4,555	4,357	4,360	4,583
Africa excluding South Africa	4,472	4,555	4,357	4,360	4,583
<u>Meat</u>					
North Africa	1,603	1,678	1,697	1,765	1,878
Central Africa	229	221	216	217	224
Eastern and Southern Africa	2,038	2,114	2,155	2,177	2,155
Great Lakes	221	221	224	228	234
West Africa	1,577	1,619	1,644	1,639	1,678
All subregions	5,663	5,853	5,935	6,025	6,182
Africa excluding South Africa	5,742	5,929	6,013	6,106	6,264
<u>Milk total</u>					
North Africa	6,535	6,813	7,092	7,223	6,889
Central Africa	185	183	181	175	177
Eastern and Southern Africa	4,034	4,341	4,514	4,293	4,083
Great Lakes	126	129	119	123	126
West Africa	1,409	1,432	1,430	1,393	1,399
All subregions	12,283	12,898	13,336	13,207	12,674
Africa excluding South Africa	12,366	12,976	13,414	13,286	12,754
<u>Cassava</u>					
North Africa	125	125	125	125	128
Central Africa	2,708	2,794	2,627	2,752	2,789
Eastern and Southern Africa	16,441	16,038	17,037	17,766	17,730
Great Lakes	14,109	15,221	15,715	16,048	16,080
West Africa	16,187	17,283	15,220	19,535	17,638
All subregions	49,571	51,510	50,724	56,226	54,364
Africa excluding South Africa	49,575	51,514	50,728	56,230	54,369

	1981	1982	1983	1984	1985
<u>Yams</u>					
North Africa	115	115	115	115	115
Central Africa	863	915	864	876	867
Eastern and Southern Africa	286	289	291	221	221
Great Lakes	207	213	222	223	228
West Africa	21,637	22,910	21,123	23,300	23,354
All subregions	23,108	24,442	22,614	24,734	24,784
Africa excluding South Africa	23,108	24,442	22,614	24,734	24,784
<u>Maize</u>					
North Africa	3,436	3,624	3,791	3,857	4,462
Central Africa	523	530	586	582	628
Eastern and Southern Africa	11,016	11,008	9,691	9,954	12,976
Great Lakes	910	902	918	837	1,000
West Africa	3,145	3,330	2,927	3,527	3,753
All subregions	19,029	19,394	17,914	18,807	22,825
Africa excluding South Africa	19,090	19,455	17,973	18,869	22,837
<u>Plantains</u>					
North Africa	-	-	-	-	-
Central Africa	1,307	1,289	1,246	1,267	1,277
Eastern and Southern Africa	7,156	7,857	8,142	8,173	8,178
Great Lakes	3,771	3,838	4,043	3,680	3,790
West Africa	3,773	3,818	3,335	3,588	3,499
All subregions	16,007	16,801	16,766	16,707	16,744
Africa excluding South Africa	16,007	16,801	16,766	16,707	16,744
<u>Rice paddy</u>					
North Africa	2,265	2,453	2,453	2,245	2,423
Central Africa	109	111	142	97	132
Eastern and Southern Africa	2,637	2,569	2,764	2,847	2,891
Great Lakes	266	266	286	302	306
West Africa	3,436	3,487	3,340	3,319	3,572
All subregions	8,713	8,886	8,985	8,809	9,324
Africa excluding South Africa	8,713	8,886	8,985	8,809	9,324
<u>Vegetable fresh</u>					
North Africa	10,287	10,113	10,656	10,785	10,966
Central Africa	559	584	593	599	610
Eastern and Southern Africa	3,581	3,661	3,663	3,687	3,744
Great Lakes	822	851	870	882	899
West Africa	5,360	5,774	6,019	6,261	6,390
All subregions	20,609	20,983	21,770	22,213	22,603
Africa excluding South Africa	20,609	20,983	21,770	22,213	22,603

Table 3: Flow of cereals food-aid (Quantity, in million metric tons)

	1979/80		1980/81		1981/82		1982/83		1983/84	
	Qty.	%	Qty.	%	Qty.	%	Qty.	%	Qty.	%
<u>Total developing countries</u>	8.6	-	8.7	-	8.7	-	9.1	-	9.8	-
Asia	4.0	47	3.5	40	2.9	33	2.9	32	3.3	34
Africa	3.6	42	4.5	52	4.9	56	4.6	51	5.1	52
(a) North Africa	2.1	58	2.1	47	2.5	51	2.1	46	2.4	47
- Egypt	1.7	81	1.9	90	2.0	80	1.8	86	1.8	75
(b) Sub-Saharan Africa	1.5	42	2.4	53	2.4	49	2.5	54	2.7	53
- Sahelian countries <u>1/</u>	0.2	13	2.4	17	2.4	21	2.5	16	2.7	22
- Major recipient in Eastern and Southern Africa <u>2/</u>	0.8	53	1.3	54	1.2	50	1.4	56	1.3	48

Source: Extracted from food aid in figure No. 3, 1985, Food and Agriculture Organization (FAO).

1/ Include Burkina Faso, Cape Verde, Chad, the Gambia, Mali, Mauritania, the Niger and Senegal.

2/ Group of Eastern and Southern Africa comprising Ethiopia, Kenya, Mozambique, Somalia, the Sudan and the United Republic of Tanzania.

(a) Percentage of total Africa.

(b) Percentage of total Africa.

Table 4: Export crop production in Africa excluding South Africa
(1000 MT) average annual changes, %

	1981	1982	1983	1984	1985	1981- 1984	1984- 1985
Coffee, green	1,265	1,202	1,168	1,151	1,395	-3.1	21.2
Cocoa beans	1,068	875	859	1,045	997	0.6	-4.6
Tobacco leaves	220	245	268	296	301	10.4	1.7
Tea	195	207	220	220	240	4.1	9.1
Sugarcane	46,898	48,402	49,962	49,449	51,161	1.8	3.5
Cotton lint	1,091	1,103	1,205	1,206	1,281	3.5	6.2
Sugar, raw centrifugal	4,578	4,914	5,113	5,221	5,504	4.5	5.4
Sisal	162	157	141	137	136	-5.4	-0.7
Seed cotton	3,022	3,040	3,413	3,459	3,582	4.7	3.6
Groundnuts in shell	4,496	4,472	3,432	3,783	4,007	-4.5	5.9
Cotton seed	1,874	1,889	2,138	2,183	2,241	5.4	2.7

Source: FAO, 1985, FAO Production Computer Print-outs, 12/16/85, Statistics Division, FAO, Rome.

Table 5: Rates of food and agricultural production growth in Africa

Period	Export crops	Food crops
1980-1981	1.1	1.0
1981-1982	3.4	3.7
1982-1983	0.4	0.2

Source: Dalhousie University, Briefing Paper on Africa's Economic Crisis, 1985.

Table 6: Livestock population by subregion, 1980-1985

Category/subregion	Population (000 head)	
	1980	1985
1. <u>Cattle, total</u>	154,939	158,425
Tangier MULPOC	25,777	27,071
Yaounde MULPOC	8,991	8,927
Lusaka MULPOC	84,586	87,357
Gisenyi MULPOC	2,420	2,460
Niamey MULPOC	33,165	32,610
2. <u>Sheep, total</u>	145,675	156,138
Tangier MULPOC	57,253	61,683
Yaounde MULPOC	4,776	4,410
Lusaka MULPOC	46,743	49,792
Gisenyi MULPOC	1,346	1,414
Niamey MULPOC	35,557	38,839
3. <u>Goats, total</u>	142,743	148,222
Tangier MULPOC	25,998	25,172
Yaounde MULPOC	5,755	5,166
Lusaka MULPOC	56,680	59,878
Gisenyi MULPOC	4,274	4,939
Niamey MULPOC	50,535	53,067
4. <u>Chickens, total</u>	542,000	668,000
Tangier MULPOC	115,000	136,000
Yaounde MULPOC	16,000	18,000
Lusaka MULPOC	183,000	209,000
Gisenyi MULPOC	19,000	23,000
Niamey MULPOC	209,000	282,000

Meat, indigenous production by subregions 1975, 1980 and 1985 -
Percentage changes from 1975 to 1985 and share of beef, mutton
and pigmeat in total meat, 1975 and 1985

Subregions	Production (1000 MT)			Percentage changes(%)	Share of beef, mutton and pigmeat in total meat (%)	
	1975	1980	1985	1985/1975	1975	1985
Tangier MULPOC	1,232	1,444	1,806	46.6	74.6	73.0
Yaounde MULPOC	213	255	233	9.3	70.0	70.8
Lusaka MULPOC	1,810	2,048	2,195	21.3	72.5	70.0
Gisenyi MULPOC	217	217	232	6.9	40.5	42.2
Niamey MULPOC	1,132	1,524	1,696	49.8	63.6	55.1
All MULPOCs	4,604	5,488	6,162	33.8	69.3	66.0

Source: FAO, Production Computer Print-Outs, 12/6/85, Statistics Division, FAO, Rome.

Table 8: Food imports of the African region (excluding South Africa) 1980-1984 (in millions of US dollars)

Commodity	1980	1981	1982	1983	1984
Total merchandise	74882.8	82078.7	77883.8	73441.6	75441.0
Agric. products	14293.7	16502.9	15098.5	14246.6	15073.7
Meat	628.9	848.3	843.6	761.1	856.8
Dairy products	2392.2	1591.9	1497.2	1474.8	1392.0
Cereals	5371.3	6241.2	5832.9	5255.0	5942.3
Oil seeds	79.3	75.5	67.6	52.8	53.5
Vegetable oils	1012.2	1120.7	950.6	1010.9	1166.3
Agric. requisites a/	2020.6	1892.8	-	1665.6	1781.2
Fishery products	823.4	830.5	623.6	592.1	508.2
Forestry products	1435.0	1638.9	1615.2	769.3	1790.5
Food	9483.9	9877.6	9191.9	8554.6	9410.9

Source: FAO country tables, 1984 and 1986, basic data on the agricultural sector, Rome.

a/ Agricultural requisites comprised crude fertilizers, manufactured fertilizers, pesticides and agricultural machines.

Table 11: Proportion of public expenditure allocated to agriculture in selected countries over the period 1983-1984

Countries	Actual expenditure (in millions of US dollars)	%
Cameroon	108.90	6
Côte d'Ivoire	167.69	10
Egypt	1689.71	9
Ethiopia	36.08	7
Ghana	37.39	5
Kenya	150.97	10
Malawi	51.27	15
Mali	28.59	4
Morocco	244.16	5
Niger	30.10	9
Nigeria	652.49	4
Senegal	48.89	11
Sierra Leone	14.44	10
Sudan	152.66	11
Tanzania, United Republic of	131.84	8
Tunisia	280.27	13
Zambia	187.36	17

Source: Atlas of African Agriculture, FAO, 1986.

Table 13: Key macro-economic indicators: annual growth rates, 1960-1984 (in percentage)

	1960- 1970	1970- 1975	1975- 1980	1980- 1984	1981	1982	1983	1984
Gross domestic product								
IDA-eligible countries	3.6	2.4	2.3	0.7	1.7	0.8	-0.1	0.8
Other sub-Saharan Africa	3.9	7.8	3.4	-2.6	-1.7	-1.6	-4.4	-2.4
Total sub-Saharan Africa	3.7	5.5	3.0	-1.4	-0.5	-0.7	-2.7	-1.2
Population								
IDA-eligible countries	2.5	2.7	2.8	3.0	3.0	3.0	3.1	3.1
Other sub-Saharan Africa	2.6	2.8	2.7	3.5	3.5	3.5	3.5	3.5
Total sub-Saharan Africa	2.5	2.8	2.8	3.2	3.2	3.2	3.2	3.2
Per capita GDP <u>a/</u>								
IDA-eligible countries	1.0	-0.3	-0.5	-2.3	-1.2	-2.2	-3.0	-2.2
Other sub-Saharan Africa	1.3	4.9	0.7	-5.9	-5.0	-4.9	-7.6	-5.7
Total sub-Saharan Africa	1.2	2.7	0.2	-4.4	-3.5	-3.8	-5.7	-4.2
Export volume <u>a/</u>								
IDA-eligible countries	..	-2.2	1.4	-2.6	-2.7	-6.5	-1.9	2.7
Other sub-Saharan Africa	..	4.7	3.0	-9.3	-24.0	-8.0	-13.6	14.1
Total sub-Saharan Africa	..	2.7	2.6	-7.4	-18.7	-7.6	-10.1	10.4
Import volume <u>a/</u>								
IDA-eligible countries	..	-4.8	2.8	-5.4	-7.5	-5.6	-7.5	0.5
Other sub-Saharan Africa	..	8.7	6.8	-6.2	16.1	-9.6	-18.3	-1.8
Total sub-Saharan Africa	..	0.6	5.0	-5.9	6.4	-8.2	-14.3	-0.9
Terms of trade <u>a/</u>								
IDA-eligible countries	..	-7.7	0.1	-0.1	-12.1	-1.2	5.1	2.4
Other sub-Saharan Africa	..	12.6	7.3	-0.6	3.9	1.3	-6.6	1.4
Total sub-Saharan Africa	..	0.5	4.9	-0.8	-1.0	0.5	-3.6	1.8

Source: World Bank, "Financing adjustment with growth in sub-Saharan Africa, 1986-1990", February 1986.

a/ These growth rate are derived from United Nations Trade Data in current US dollars deflated by appropriate price indexes (exports by weighted unit price indexes constructed from the World Bank's primary commodity price data and the manufacturing unit value index, and imports by implicit import deflators). Unit value series are calculated from the dollar series in current

Annex II

Short- and medium-term emergency measures proposed for
improving the food situation in Africa

1. Short-term measures

- (a) Mobilization of all available manpower and transportation facilities to expedite the internal delivery of relief supplies to the vulnerable people in the affected countries;
- (b) Provision of adequate supplies of agricultural inputs particularly seeds, fertilizers and draught power to farmers long before the onset of the next crop growing season;
- (c) Timely collection and safe storage of crops being or to be harvested during this year's growing season;
- (d) Up-grading and improving internal marketing facilities such as rural roads and storage structure;
- (e) Establishment of new watering points and fodder reserves for livestock;
- (f) Restoration and utilization of traditional irrigation network;
- (g) Pre-positioning of food stocks in disaster-prone areas or in other strategic locations;
- (h) Offering appropriate guidance or counselling to farmers regarding the effective application of agricultural inputs like pesticides and fertilizers; and
- (i) Reducing waste and losses emanating from the harvesting, processing and consumption of fish.

2. Medium-term measures

- (a) Increasing national preparedness actions through, inter alia, the establishment of early-warning systems, food relief contingency schemes and detailed plans for distributing emergency food supplies;
- (b) Strengthening existing research and extension services;
- (c) Building-up of middle-level national competence in the management and administration of agricultural development programmes and projects as well as in the formulation of related policies;
- (d) Development of small-scale irrigation programmes;
- (e) Prevention of food losses with a particular focus on those occurring at storage, handling and processing points;

- (f) Overall improvement in agricultural marketing infrastructure including the construction of new facilities with emphasis on rural roads and storage structures;
- (g) Expansion and rehabilitation of rural water resources for human and livestock consumption;
- (h) Reinforcing existing institutions and practices pertaining to animal disease control and the multiplication and dissemination of crop and animal species; and
- (i) Diversifying the production of food commodities in favour of root crops.

Annex IIIFish catches, Africa excluding South Africa 1980, 1983
(in metric tons)

	<u>Inland water</u>		<u>Marine</u>	
	1980	1983	1980	1983
Algeria	-	-	48,000	70,000
Egypt	108,148	114,910	32,249	25,090
Libyan Arab Jamahiriya	-	-	5,200	7,500
Morocco	387	1,351	329,520	438,544
Sudan	25,110	25,050	950	4,450
Tunisia	-	-	60,154	67,145
Sub-total	133,645	141,311	476,073	612,729
Benin	20,200	17,000	3,390	4,050
Burkina Faso	6,500	7,000	5,634	13,856
Cape Verde	-	-	8,837	13,205
Côte d'Ivoire	15,000	14,680	62,680	79,280
The Gambia	3,439	645	10,565	8,953
Ghana	40,000	43,000	184,121	185,000
Guinea	1,000	1,000	17,453	17,453
Guinea-Bissau	-	-	3,777	2,617
Liberia	4,000	4,000	7,791	9,553
Mali	80,000	33,000	-	-
Mauritania	10,000	11,000	10,132	42,849
Niger	8,892	6,840	-	-
Nigeria	187,206	124,943	292,390	390,306
Senegal	-	-	250,186	212,895
Sierra Leone	14,982	16,480	34,205	36,558
Togo	3,500	700	-	-
Sub-total	394,769	280,283	891,161	1,016,575
Central African Republic	13,000	13,000	-	-
Chad	115,000	110,000	-	-
Congo	3,000	12,000	19,570	19,926
Equatorial Guinea	-	-	2,500	2,500
Gabon	400	2,633	26,417	50,005
Sao Tome and Principe	-	-	417	4,050
Cameroon	38,000	40,000	39,283	44,277
Sub-total	174,400	177,633	88,187	120,758
Burundi	14,767	12,000	-	-
Rwanda	1,200	1,210	-	-
Zaire	-	-	615	1,000
Sub-total	15,967	13,210	615	1,000

	<u>Inland water</u>		<u>Marine</u>	
	1980	1983	1980	1983
Angola	8,000	8,000	77,585	104,414
Botswana	1,250	1,250	-	-
Comoros	-	-	4,000	4,000
Djibouti	-	-	251	426
Ethiopia	3,100	3,500	407	400
Kenya	42,171	91,068	5,403	6,393
Lesotho	27	20	-	-
Madagascar	37,964	42,200	10,142	12,307
Malawi	65,757	58,416	-	-
Mauritius	16	24	6,389	9,512
Mozambique	5,000	5,000	30,350	37,440
Seychelles	-	-	4,676	3,854
Somalia	-	-	14,330	15,550
Swaziland	44	44	-	-
Uganda	165,840	172,000	-	-
Tanzania, U.R. of	189,900	236,980	39,374	35,518
Zambia	50,987	67,234	-	-
Zimbabwe	13,288	17,700	-	-
Sub-total	583,340	703,436	192,907	229,760
North Africa subregion	133,645	141,311	476,073	612,729
West Africa subregion	394,769	280,288	891,161	1,016,575
Central Africa subregion	174,400	177,633	88,187	120,758
Great Lakes subregion	15,967	13,210	77,585	104,414
Eastern and Southern Africa subregion	583,340	703,436	192,907	229,760
All subregions	1,302,121	1,315,878	239,282	344,128
Others, excluding South Africa	50	50	-	-
Africa, excluding South Africa	1,302,171	1,315,928	1,965,195	2,428,364

Source: FAO, 1984, Yearbook of Fishery Statistics, Vol. 51,
Fisheries Department, FAO, Rome.