UNITED NATIONS

ECONOMIC AND SOCIAL COUNCIL

Dist.
GENERAL

E/ECA/CM.11/37
Date: February 1985

Original: ENGLISH

ECONOMIC COMMISSION FOR AFRICA

Sixth Meeting of the
Technical Preparatory Committee
of the Whole

Addis Ababa, Ethiopia, 15-22 April 1985

Item 6 (iv) of the provisional agenda

ECONOMIC COMMISSION FOR AFRICA

Twentieth Session of the Commission
and Eleventh Meeting of the
Conference of Ministers

Addis Ababa, Ethiopia, 25-29 April 1985

Item 7 (iv) of the provisional agenda*/

EVALUATION OF THE IMPLEMENTATION OF THE REGIONAL FOOD PLAN FOR AFRICA (1978-1984) AND A PRELIMINARY ASSESSMENT OF THE FOOD AND AGRICULTURAL ASPECTS OF THE LAGOS PLAN OF ACTION

*/ E/ECA/TPCW.6/1/Rev.1
E/ECA/CM.11/1/Rev.1

TABLE OF CONTENTS

LIST OF TABLES

EVALUATION OF THE IMPLEMENTATION OF THE REGIONAL FOOD PLAN FOR AFRICA (1978-1984) AND A PRELIMINARY ASSESSMENT OF THE FOOD AND AGRICULTURAL ASPECTS OF THE LAGOS PLAN OF ACTION

I. INTRODUCTION

1. This paper compares the food and agriculture related targets in the Regional Food Plan for Africa (AFPLAN) and the Agricultural Chapter of the Lagos Plan of Action (AGC/LPA) with actual results since 1978 and 1980, when these prescriptions were adopted as the basis for overall agricultural development in Africa. Reasons for the gaps between targets and results are also presented. The purpose of the assessment is to provide a more realistic basis for future action.

2. AFPLAN, which was jointly prepared by FAO and ECA, was adopted by the FAO Regional Conference of African Ministers of Agriculture in Arusha (1978), and endorsed by the Fifth Meeting of the ECA Conference of Ministers in Monrovia (1979). It laid down the medium-term actions and strategies required to promote food production and the long-term perspectives for agricultural development. A path for the development of the agricultural sector up to 1990 was charted, based on recommended policies and programmes at national and inter-governmental levels. Actions at the national level included preparation and implementation of priority policies, programmes and projects aimed at achieving regional food self-sufficiency. On the other hand, priorities at the inter-governmental level required African governments to undertake joint ventures for food production and intra-regional trade.

3. The Lagos Plan of Action (LPA) is an action plan for the implementation of the 1979 Monrovia Strategy for the Economic Development of Africa. It was adopted by the Heads of State and Governments at their extraordinary summit in Lagos, April 1980.

4. LPA was submitted to the UN General Assembly in September 1980 as a working document at the time the Assembly was preparing an international development strategy for the Third Development Decade. The African part of the strategy drew considerably from the Lagos Plan of Action and, together with the Monrovia Declaration, is now an integral part of the International Development Strategy for the Third United Nations Development Decade, adopted by the 11th Special Session of the UN General Assembly on New International Economic Order.

5. LPA is a multi-sectoral plan of action which outlines the aspirations and intentions of the African people. It calls for a restructuring of Africa's economic base and the transformation of social and economic systems, many of them inherited from the colonial past, as a means of promoting integrated and self-reliant development. It has raised great expectations in Africa and the rest of the international community.

6. The Agriculture Chapter of the LPA (AGC/LPA), prepared by an inter-agency group convened jointly by the OAU and ECA and comprised of OAU, ECA, FAO, ADB, WFC and IFAD, was basically a follow-up to AFPLAN. The objectives and strategies of AFPLAN were made more concrete by focusing attention on the most urgent short-run priority measures to arrest the decline in food and agricultural production during the Plan's first five-year period (1980-1985).

7. Both AFPLAN and LPA were adopted against the background of two decades of stagnating or declining food and agricultural performance. The African food crisis was characterized as having two aspects: one the food production/demand gap, which continued to widen; the second, a corollary to the former, was the increasing problem of hunger and malnutrition for large sections of the populations of African nations. The position which was taken by the African authorities in the AFPLAN/LPA in essence represents a formal awareness of the persistent crisis and the commitment to grapple with the problem, as indicated by the LPA declarations.

8. The Heads of States, among other statements, declared: "Thus Africa is unable to point to any significant growth rate, or satisfactory index of general well-being, in the past 20 years. Faced with this situation, and determined to undertake measures for the basic restructuring of the economic base of our continent, we resolve to adopt a far-reaching regional approach based primarily on collective self-reliance." This declaration applied particularly to the agriculture sector. Of all the major geographical regions, Africa was the only one that experienced declining per capita food production in the previous two decades. There was also a decline in export crop production, in effect compounding the food crisis into an agrarian crisis. The prolonged poor performance of both food and export crops was a major factor explaining Africa's general economic stagnation.

9. With regard to agriculture, the LPA's stated aim was to bring about an immediate improvement in the food situation while laying the foundation for the long-term strategy of achieving regional food self-sufficiency as envisaged in AFPLAN. This objective was to be achieved through less reliance on modes of development external to the region, and more emphasis placed on a new approach to development based on more self-reliant development strategies. 1/

10. Section II of this paper deals with LPA goals and priorities for the food and agriculture sector. Section III outlines progress made in achieving the targets. The major causes of poor performance are outlined in Section IV. Section V views prospects for improving the food and agriculture situation in Africa.

1/ For a departure from this viewpoint, see the 1981 World Bank report, Accelerated Development in Sub-Saharan Africa: An Agenda for Action (the so-called "Berg Report"), which advances a different vision of economic development strategy for Africa. More recent World Bank writings have, however, expressed more moderate and flexible views — as, for example, Toward Sustained Development in Sub-Saharan Africa: A Joint Program of Action,

11. It should be noted that the main focus of this assessment is on AFPLAN and Chapter I of the LPA, "Food and Agriculture". However, there are other broader goals and requirements outlined elsewhere in the LPA (e.g. the chapters on industry, human resource development, natural resources, science and technology, trade, women and environment) which are closely linked to food/agricultural progress and to improvement of rural well-being. These are also referred to in the evaluation of performance that follows.

II. SPECIFIC OBJECTIVES AND TARGETS FOR FOOD AND AGRICULTURE

12. With respect to food and agriculture, the medium-term objective of the LPA was "to bring about an immediate improvement in the food situation and to lay the foundations for the achievement of self-sufficiency in cereals and livestock and fish projects" through policies that also improve living conditions in rural areas and increase farmers' real incomes. The Plan of Action stresses that policies for food self-sufficiency should aim at solving, simultaneously, the problems of undernourishment and malnourishment, and that increased agriculture production should be based on adequate and realistic agrarian reforms. The aim was <u>at least</u> to "halt and, if possible, to reverse within 1980-85, the alarming trends" of the ever-worsening food self-sufficiency ratio (SSR, calories domestically produced as a percent of total calorie supply), which between 1978 and 1980 had decreased from 95 to 92 percent.

13. Specific targets and measures are recommended for the control of food losses, and the development of food security, food production, and forestry, as summarized in the following paragraphs.

14. The LPA envisaged significant progress toward a 50-percent reduction in <u>post-harvest food losses</u> in every African country betweeen 1980 and 1985. To achieve this, each country would have to undertake a careful assessment of the magnitude of current food losses, formulate policies for loss reduction, develop and propagate efficient methods of reducing losses, provide storage and other relevant infrastructural facilities, and set up adequately staffed technical food loss control units.

15. It was recommended that every African country adopt coherent national <u>food security</u> policies and translate them into concrete actions. In particular, for most countries, the establishment of national strategic food reserves of the order of 10 percent of total food production was to be considered as a high-priority measure.

16. While a favourable scenario assumed a 7-percent increase in GDP per annum for agriculture this growth was to be not less than 4 percent a year. Quantitative and qualitative improvements were strongly recommended with respect to all <u>food crop production</u>. For most countries the principal immediate objective was a very rapid increase in the production of tropical cereals in order to reduce dependence on imports of wheat and barley. Urgent action was

recommended for increasing food-crop production. This included promotion of better agricultural practices; strengthening incentives to small farmers; soil and water conservation; flood control and drainage; expansion and improvement of irrigation; promotion of improved hand tools, draught animals and, where justified, mechanized farming; and physical infrastructural development.

17. The main areas recommended for increased efforts with regard to livestock production were training; control of trypanosomiasis, tick-borne diseases, and foot-and-mouth disease; animal breeding; range management; animal feeds; and infrastructure.

18. Regarding fisheries, the Lagos Plan of Action proposed a target increase in annual fish production of one million tonnes between 1980 and 1985 for the continent as a whole. In order to attain this, the principal measures recommended at the national level were the development of industrial off-shore fleets; improvement of artisanal fisheries; expansion of aquaculture; improvement of shore-based infrastructure and communications with markets; improvement of traditional fish processing methods; and review of existing fishing agreements and their renegotiation as necessary.

19. African countries were urged to intensify efforts to integrate forestry more fully with agriculture and other land use, especially through village and farm-level programmes. The LPA also recommended the conduct of national forestry inventories, the expansion of areas under forestry regeneration programmes by 10 percent per annum and of forest reserves by 10 percent between 1980 and 1985, and a progressive reduction of exports of unprocessed logs.

20. The important roles of research, training, extension and other services in support of agricultural production and the need for their strengthening, reorientation and inter-linkage within the context of integrated rural development were stressed in the Lagos Plan of Action. The development of effective and efficient institutions for rural development planning and monitoring, data collection, provision of agricultural credit and inputs, transport and marketing, agro-industrial development, storage, and processing were also strongly recommended.

21. The LPA called upon governments to formulate and apply effective and coherent income and price policies that provided adequate incentives to small farmers while safeguarding the interests of the poorer consumers at the same time. Emphasis was also placed on the need to ensure that the design and implementation of agricultural and rural development programmes generally contribute to a reduction in income inequalities in rural areas.

22. Despite the clear primacy of policies and measures recommended to be formulated and executed within the context of individual countries, the LPA assigned an important role to intensifed technical and economic cooperation at the subregional and regional levels on matters such as the establishment and operation of food security

systems, food distribution, pest management and disease control, the management of shared fisheries resources and of international lake and river basins, the development and supply of agricultural inputs, fuelwood and charcoal production, forest industries, and research and training. The vital need to expand intra-African trade in food and other agricultural products was particularly stressed.

23. Self-reliance at the national, subregional and regional levels is a dominant theme of the LPA. It was recognized, however, that achievement of the Plan's objectives called for massive external assistance, both capital and technical, and agencies of the UN Family were expected to play a leading part in the mobilization of this assistance. The financial resources required for the 1980-85 period were estimated to be about US$22 000 million at 1979 prices, and 50 percent of this investment was envisioned as being mobilized from African sources.

24. The LPA recommended the establishment of inter-agency "strategy review missions" which, on request by governments, would assist countries in determining the manner in which its various recommendations were to be applied in specific contexts. In the same vein, FAO, in cooperation with other relevant agencies, was enjoined to expand its programmes for the development of national capabilities to identify, prepare, execute, monitor and evaluate agricultural development projects and programmes for the implementation of Plan of Action.

25. The LPA further recommended that governments adopt annual goals for food and agriculture and establish appropriate machineries for monitoring and reporting regularly on progress toward these goals. FAO, with other relevant agencies, would consolidate the national progress reports and present them to the FAO Regional Conference, the ECA Conference of Ministers and, finally, the OAU Summit Conference.

III. PROGRESS AND ACHIEVEMENTS

26. The following paragraphs of this paper review, on the basis of available data, the performance of the food and agricultural sectors of African economies. The aim is to assess the progress made in the period 1978-84 in relation to the objectives and targets of AFPLAN and the agriculture chapter of the Lagos Plan of Action.

A. Trends in food and agricultural production

1. Overall trends

27. As shown by Table 1, available data point to the overall worsening of the food and agricultural output situation in the region during the early 1980s. For both food and agricultural production, the average annual rate of growth was only 1.7 percent from 1978 to

1984. Population grew faster than output. Per capita agricultural and food production growth rates have, therefore, been negative.

2. Trends according to commodities

28. As shown by Table 2, per capita net production of food declined by nearly 2 percent a year during the 1980-84 period. Per capita net production of non-food items (mostly cash crops for export) declined 2.9 percent a year. Total production of vegetables and fruit, meat and other livestock products, roots and tubers, pulses and sugar crops increased during those five years, whereas total production of cereals and oil crops declined.

TABLE 1

FOOD AND AGRICULTURAL PRODUCTION INDICES,
DEVELOPING COUNTRIES IN AFRICA, 1978-84

	1978	1979	1980	1981	1982	1983	1984	Annual rate of change (%) 1978-84
PRODUCTION INDICES (1974-76=100)								
Food production	105	107	111	113	117	113	117	1.7
Agricultural production	104	107	110	112	116	112	116	1.7
Per capita food production	96	95	95	94	94	88	89	-1.4
Per capita agric. production	95	95	95	93	94	88	88	-1.4
POPULATION (millions)								
Total	361	373	385	397	409	422	435	3.1
Agricultural	248	254	259	264	269	275	280	2.0

Source: FAO statistics printout, Rome, 11 December 1984

3. Trends according to subregions within Africa

29. In Africa, where countries vary significantly in such aspects as geographical and population size, natural resource endowments, weather conditions, management capabilities and socio-political characteristics, food and agricultural production performance has differed considerably from one country to another. There are, indeed, countries where food output has registered positive growth since the late 1970s. FAO data for 46 African countries indicate that five of

TABLE 2

ANNUAL GROWTH OF AGRICULTURAL AND FOOD PRODUCTION
IN DEVELOPING AFRICA, BY COMMODITY GROUPINGS

	Percent change				Exponential growth rate 1980-84
	1980-81	1981-82	1982-83	1983-84	
TOTAL POPULATION	3.1	3.1	3.1	3.1	3.1
Food/Non-food groups					
Food					
Total production a/	1.5	4.1	-3.7	3.6	1.1
Per capita	-1.6	0.9	-6.6	0.4	-2.0
Non-food					
Total production	0.6	-1.0	1.3	0.1	0.2
Per capita	-2.4	-4.1	-1.8	-3.0	-2.9
Agriculture					
Total production	1.5	3.8	-3.4	3.4	1.0
Per capita	-1.6	0.6	-6.3	0.2	-2.0
COMMODITY GROUPS					
Cereals					
Total production	-4.9	6.5	-14.0	2.1	-3.2
Per capita	-7.8	3.2	-16.6	-1.1	-6.1
Roots and tubers					
Total production	2.4	5.0	-6.7	8.1	1.4
Per capita	-0.7	1.8	-9.5	4.8	-1.7
Sugar crops					
Total production	10.7	7.6	-1.4	-2.7	3.3
Per capita	7.2	4.5	-4.3	-5.6	0.2
Pulses					
Total production	-0.8	8.3	-2.5	-2.5	1.0
Per capita	-4.1	5.2	-5.3	-5.6	-2.1
Oil crops					
Total production	0.3	5.6	-9.9	4.1	-0.6
Per capita	-2.8	2.5	-12.7	1.0	-3.7
Vegetables and melons					
Total production	3.1	5.5	2.8	3.4	3.8
Per capita	-	2.3	-0.4	0.3	0.6
Fruit					
Total production	0.1	-	-	2.6	0.5
Per capita	-3.0	-3.0	-3.0	-0.6	-2.5
Livestock products					
Total production	3.6	3.5	2.3	1.1	2.7
Per capita	0.5	0.4	-0.8	-2.0	-0.4

Source: FAO statistics printout, Rome, 11 December 1984

a/ Net production; i.e. gross production less feed, seed and losses.

the best performers have been Swaziland, Libyan Arab Jamahiriya, Algeria, Ivory Coast and Rwanda. Their median index of food production during the period 1980-84 was 16 percent above 1978-79 levels. The five countries in the group which suffered the largest declines produced a median of 6 percent less in 1980-84 than in 1978-79.

30. Broader patterns of 1980-84 food and agricultural production within developing Africa according to subregions are shown in Table 3. 1/

B. Reduction of food loss

31. If prevention of food loss (PFL) measures and programmes were to be successfully initiated in Africa, they would rapidly improve the grave shortage of food situation that Africa is experiencing. The LPA resolution to reduce food loss by 50 percent by 1985 has evoked both national as well as supporting international action. In this connection, there is recognition of the necessity to address elements of this problem. The elements include: i) assessment of loss in the post-harvest system; ii) plant protection from rodents and birds; iii) development of plant pathology particularly in such areas as prevention of rotting of fruits and vegetables; iv) plant breeding aiming at development of species which are better suited for storability and processing; v) agronomic expertise which would advise on appropriate planting and harvesting periods; vi) climatological knowledge relating to storage; and vii) the structural engineering and mechanical disciplines that are pertinent to design of storage structures, packaging and processing of food.

32. PFL endeavours of governments in the region vary in scope and range as to which of the above programme elements receive special focus. The crucial aspect in this effort is the integration in the normal agricultural and rural development programme of the post-harvest factors. PFL activities embrace production, harvesting, storage, processing and marketing. This prompts the incorporation of PFL aspects in all these activities.

33. The international community has, after the UN General Assembly in 1975, focused attention on post-harvest food losses in staple foods in Africa. Multilateral and bilateral development agencies have

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1/ Developing Africa, as defined here, consists of all states on the African continent including the islands of Seychelles, Mauritius, Madagascar but excluding South Africa, the Sudan, Egypt and the Libyan Arab Jamahiriya.

TABLE 3

ANNUAL GROWTH OF AGRICULTURAL AND FOOD PRODUCTION COMPARED TO POPULATION GROWTH, BY DEVELOPING AFRICA SUBREGIONS

Subregion	Percent change				Exponential growth rate 1980-84
	1980-81	1981-82	1982-83	1983-84	
NORTHWESTERN AFRICA					
Agriculture					
Total production a/	10.5	11.4	-1.8	5.1	1.5
Per capita	-13.3	2.0	-4.9	1.9	-1.7
Food					
Total production	-10.9	11.5	-1.9	5.1	1.4
Per capita	-13.5	8.1	-5.0	1.9	-1.7
Population	3.1	3.2	3.2	3.2	3.2
WESTERN AFRICA					
Agriculture					
Total production	3.7	3.0	-7.2	6.4	0.6
Per capita	0.5	-0.1	-10.0	3.2	-2.4
Food					
Total production	3.4	3.6	-7.4	7.2	0.8
Per capita	0.2	0.4	-10.2	3.9	-2.3
Population	3.2	3.2	3.1	3.2	3.1
CENTRAL AFRICA					
Agriculture					
Total production	2.4	3.4	-0.2	1.6	1.8
Per capita	-0.4	0.7	-2.8	-1.1	-1.0
Food					
Total production	2.9	2.9	0.6	1.1	1.8
Per capita	0.1	0.2	-2.0	-1.6	-0.9
Population	2.7	2.7	2.7	2.7	2.7
EASTERN AFRICA					
Agriculture					
Total production	2.8	2.3	0.6	-1.3	1.1
Per capita	-0.5	-1.0	-2.7	-4.4	-2.1
Food					
Total production	3.6	2.5	-0.1	-2.2	1.0
Per capita	0.3	-0.8	-3.2	-5.3	-2.2
Population	3.7	3.3	3.3	3.2	3.3
SOUTHERN AFRICA DEVELOPING					
Agriculture					
Total production	5.1	0	3.8	3.2	0.5
Per capita	2.2	-2.8	-6.6	0.2	-2.4
Food					
Total production	5.7	0.4	-4.1	3.4	0.7
Per capita	2.8	-2.5	-6.8	0.5	-2.2
Population	2.9	2.9	2.9	2.9	3.0

Source: FAO statistics printout, Rome, 11 December 1984

a/ Net production; i.e. gross production less feed, seed and losses.

joined the African governments in dealing with this problem through joint projects and financial assistance. FAO is an executing agency for some of these donor-financed projects. 1/

34. Recognizing the importance of farmers and the general public being informed of the implications of food losses, a few years ago the ECA as an executing agency for a bilateral donor formulated a regional mass media campaign project on food losses. The project has been implemented for several African countries. The ECA has also recently prepared a major regional project on PFL and on the improvement of storage capacity. Donor finance is being sought to fund the project.

35. IFAD and UNDP have been the main multilateral agencies that have helped to financed pilot PFL projects. Among bilateral donors, USAID, CIDA, SIDA, NORAD and DANIDA have allocated sizeable amounts of resources in donor assistance to the PFL programmes. Pilot projects undertaken so far have led to compilation of useful data on PFL methods appropriate for local conditions. The region can now benefit by utilizing the findings of the projects.

C. Strategic food reserves

36. Maintenance of strategic food reserve (SFR) constitutes one of the important elements in the food development strategy of the LPA. Governments in Africa have began taking positive actions on the establishment of national systems food reserves. Information maintained by the FAO food reserve monitoring system (see Table 4) shows that 28 countries in the region have formulated explicit strategic reserve policies. This is approximately half the states in the region. An additional eight countries are reported to be maintaining stock practices.

37. The success of SFR in the region will depend on the clear statement of objectives, policies and efficient management of the systems. As shown in the analysis of these aspects of SFR presented in Table 4, 25 states have subscribed to the first objective of maintenance of supplies to domestic and export markets. Thirty countries have been pursuing the second objective, which is concerned with meeting emergencies. The third is stabilization of prices,

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1/ Of the projects being executed by FAO, 1 is located in Benin, 7 in Burkina Faso, 3 in Burundi, 2 in the Republic of Cameroon, 1 in the Central African Republic, 1 in the Comoros 2 in Congo, 1 in Chad, 5 in Ethiopia, 1 in Gabon, 2 in the Gambia, 4 in Ghana, 1 in Guinea, 1 in Guinea-Bissau, 1 in the Ivory Coast, 1 in Kenya, 1 in Lesotho, 2, in Liberia, 1 in Madagascar, 2 in Mali, 1 in Mauritania, 2 in Mozambique, 1 in the Niger, 3 in Nigeria, 1 in Rwanda, 2 in Senegal, 4 in Sierra Leone, 3 in Swaziland, 5 in the United Republic of Tanzania, 6 in Togo, 1 in Uganda, 2 in Zaire, 4 in Zambia, and 8 are regional projects. Total outlays on all these projects amount to US$ 8.5 million.

pursued by 23 countries. The fourth, which eleven governments have adopted, is concerned with meeting public distribution programmes. Only one country in Africa is known to have adopted the fifth objective of meeting international commitments such as food aid. The sixth objective of strategic considerations has been adopted by seven countries.

38. It should be noted that the majority of African countries maintain stocks for reserve purposes. Seventeen countries are known to maintain stocks exclusively for reserve. Eleven other countries maintain stocks for both reserve and working purposes.

39. As shown in Table 4, many countries in Africa have established target levels of stocks to maintain. The virtual absence of actual stocks reflects the serious food situation which the African region has faced in the last few years. Only Egypt and Sierra Leone reported possession of significant levels of stocks in 1984. Other states might have had extremely low levels of stocks that were not reported.

40. Some insights into causes of the precarious stock reserve situation are found in an analysis, in the concluding section of Table 4, of the constraints to the attainment of the prescribed levels of stocks. Six constraints are identified. Twenty-four African countries indicated that they were constrained by <u>insufficient domestic production</u>. This is underscored by the negative rates of growth of food production discussed above.

41. The <u>inadequacy of foreign exchange to effect imports</u> is given as the cause of the low level of stocks by 16 countries. This is explained largely by the serious balance-of-payments problem that African countries have faced. Aggregate imports of agricultural, fish and forestry products are shown in Appendix Table IV by country. Africa's import bill rose from US$12 400 million in 1978 to over US$18 000 million in 1983. In the same period, as shown in Appendix Table III, Africa's agricultural exports declined from US$13 900 million in 1978 to US$12 800 million in 1983. Africa, in absolute terms, has had adverse balances of trade in agricultural fish and forestry products in the past decade. The adverse balance of trade is much larger for the non-agricultural items. This has been caused partly by the deterioration in "terms of trade". The outcome has been a serious balance-of-payments problem and rising international indebtedness. Poor performance in the food and agriculture sector has played a major role in aggravating the economic, financial and social problems in Africa. Solutions to these problems are to be found in the development of the sectors. This is a problem that, as the LPA advocates, must be addressed by the member governments of the ECA and OAU themselves, and of course assisted by the international community as a whole.

42. The third constraint to the development of stock systems is <u>lack of storage facilities.</u> Thirteen countries have given this as an obstacle to their development of the strategic reserve systems.

TABLE 4

STRATEGIC FOOD RESERVES - NATIONAL CEREAL STOCK POLICIES AND PRACTICES IN AFRICA

COUNTRY	Explicit stock policy a/	Stock practices b/	Objectives of stock policy and practices: To maintain supplies in domestic and export markets	To meet emergencies	To stabilize prices	To meet public distribution programmes	To meet international commitments such as food aid or long-term contracts	Strategic considerations	Target for carry-over stocks c/: Total ('000 MT)	Reserve (R) Working (W)	Stock target adequate?	Actual Stocks: Percent of target (%)	Date	Stock ownership Government (G) Private (P)	Constraints in attaining stock target: Insufficient domestic production	Lack of foreign exchange to import	Lack of storage facilities	Transportation difficulties	Technical problems of stock management	Other financial or organizational problems
Algeria	x	...	x	x	x	x	...	x	2 000 a/	R + W	Yes	...	...	G	...	...	...	...	...	...
Angola	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Benin	x	...	x	x	x	...	...	...	35	R + W	...	...	...	G	x	...	...	...	...	x
Botswana	x	...	x	x	x	...	...	x	30	R	Yes	...	...	G	x	x	...	...	...	...
Burundi	...	x	x	x	x	...	...	...	6	R	Yes	...	...	G	x	x	x	x	x	x
Cameroon	x	...	...	x	x	x	...	...	70	R	Yes	...	...	G	x	...	x	x	x	x
Cape Verde	x	...	...	x	...	...	...	...	25	R	...	...	...	...	x	x	x	...	...	...
Central African Republic	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chad	x	...	...	x	x	...	...	...	40	R	...	...	...	...	...	...	...	...	...	...
Comoros	...	...	...	...	...	...	...	...	...	...	...	...	...	G	...	...	...	...	...	...
Congo	...	x	x	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Djibouti	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Egypt	x	...	x	...	...	x	...	x	1 070	W	Yes	100	Jun.84	G	x	...	x	...	x	x
Eq.Guinea	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ethiopia	x	...	...	x	...	...	...	...	180	R	Yes	10	Sep.84	G	x	x	x	x	x	x
Gabon	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gambia	x	...	x	x	...	...	...	...	27	R + W	Yes	...	...	G + P	x	x	...	x	x	...
Ghana	x	...	x	x	x	...	...	...	15 a/	...	...	...	...	G + P	x	x	x	...	...	...
Guinea	...	x	...	x	...	...	...	...	100	...	...	...	...	G	...	...	...	...	...	...
Guin Bissau	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ivory Coast	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kenya	x	...	x	x	x	x	...	x	460	R	Yes	...	...	G	x	x	...	...	...	...
Lesotho	x	...	x	x	...	...	...	...	40	R + W	Yes	...	...	G + P	...	...	...	...	...	...
Liberia	x	...	x	...	x	...	...	...	3	R + W	Yes	...	...	G + P	...	...	...	...	...	...
Libya	x	...	x	...	...	...	...	...	573	...	...	...	...	...	...	...	...	...	...	...
Madagascar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malawi	x	...	x	x	...	...	...	...	180 c/	R	Yes	...	...	G	...	...	...	x	...	...
Mali	x	...	...	x	x	...	...	x	50	R	Yes	...	...	G	x	x	...	x	...	...
Mauritania	x	...	x	x	x	...	...	...	50	R + W	...	...	...	...	...	...	...	...	...	...
Mauritius	...	x	...	...	...	...	...	...	25	...	...	...	...	P	...	...	...	...	...	...
Morocco	...	x	x	x	x	...	...	...	500	...	Yes	...	...	P	x	x	x	...	...	...
Mozambique	x	...	...	x	...	...	...	...	60	R	Yes	...	...	G	x	x	x	x	...	...
Namibia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Niger	x	...	x	x	x	x	...	...	65	R + W	No	...	...	G	x	x	x	...	...	...
Nigeria	x	...	x	x	x	...	...	...	300	R	Yes	...	...	G	x	...	x	x	x	...
Reunion	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rwanda	...	x	...	x	x	...	...	...	6	R	Yes	0	Sep.84	G	x	...	x	...	...	...
St.Helena	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
San Tome Prn	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Senegal	x	...	x	x	x	x	...	...	130	R	Yes	...	...	G	x	x	...	...	...	...
Seychelles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sierra Leone	x	...	x	x	x	x	...	...	25	R	No	100	Nov.84	G + P	x	x	...	...	...	...
Somalia	x	...	x	x	x	...	...	...	30	R	Yes	...	...	G	x	x	...	...	x	...
[South Africa]	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sudan	x	...	x	x	...	x	...	...	315	R + W	Yes	...	...	...	...	...	x	x	x	x
Swaziland	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tanzania	x	...	x	x	x	...	...	...	100	R	No	...	...	G	x	x	...	x	...	x
Togo	x	...	x	x	x	x	...	...	12	R	Yes	...	...	G	x	...	x	x	x	...
Tunisia	x	...	x	x	x	x	...	x	850	R + W	Yes	...	...	G + P	x	...	x	x	...	...
Uganda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Upper Volta c/	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Western Sahara	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Zaire	...	x	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Zambia	x	...	...	x	x	...	...	x	600 a/	R + W	Yes	12.5	Jun.84	G	x	x	x	x	...	...
Zimbabwe	...	x	x	x	x	x	x	...	440	R + W	Yes	...	...	G	x	...	...	...	...	...

Source:
- Replies by governments to the questionnaires on National Food Stock Policies and Practices;
- FAO Food Security Assistance Scheme;
- International Wheat Council, "National Stockholding Policies", Secretariat paper No.13, April 1983; and
- other official and unofficial sources.

Footnotes: a/ Estimated on the basis of official target expressed in percentage of annual consumption;
b/ Target relates to maize only.
c/Now called Burkina Faso

43. The fourth and fifth constraints are transportation difficulties and the technical problems of stock management. Seven and five governments respectively have attributed their difficulties to these constraints.

44. Other financial and organizational problems were considered by seven countries as the cause of their inability to maintain strategic stocks.

45. Subregional strategic food reserve (SFR) systems have been discussed by subregional economic groupings, such as the Preferential Trade Area for Eastern and Southern African States, the Southern African Development Coordination Conference (SADCC) and the Economic Community of the Great Lakes Countries. However, it is disappointing to note that there has been little progress in their development. Cooperation among governments in the establishment of subregional SFRs is important, and would open up new opportunities for formulating projects which cannot be funded and implemented efficiently by individual nations.

D. Agricultural services and institutional development

46. The development of agricultural services and institutions receives emphasis in the LPA as well as in the already published strategy blueprints of the OAU member states. These include marketing, research and transfer of technology, agricultural extension and credit.

47. The situation that has prevailed in countries in Africa on agricultural services and institutions which are crucial to the performance of the food and agricultural sector in the post-LPA declaration period leaves much to be desired. The poor performance of the sector can to a degree be attributed to inadequacies or shortcomings of governmental institutions in support of agricultural activities. State corporations charged with the marketing of farmers' produce and supply of farming inputs have continued to perform inefficiently and have not helped to improve food production incentives as much as they might have. Research institutions have been starved of resources. Many still focus more attention on export crops than on food crops that are important to small farmers, such as pulses, roots and tubers. Agriculture extension continues to be less than fully effective. Small farmers in many African countries have yet to be served with efficient credit institutions to finance their production activities. As discussed more fully in section IV of this paper, the continued limitations of agricultural services and institutions in Africa arise from a combination of both external and internal causes, some of which have exerted unusually severe influence these past several years.

48. There have been, however, a few exceptional undertakings to improve services and institutions related to needs of small farmers. These have also been carried out in the context of a cohesive strategy which gives high priority to food production.

49. For instance, in Mali, the activities of the large parastatal marketing organization (OPAM) have been given special attention. Considerable improvement has been made since 1980 in the restructuring and management of OPAM. Evidence of this is found in the 20 percent reduction in the operating costs of the organization, in only three years.

50. The Gambia is reported to have made progress in the reorganization of the agricultural support services, and agricultural research, extension and training of high-level manpower.

51. Kenya has adopted a Sessional Paper on Food and Agricultural development which covers a wide range of elements of strategy and policies for the development of the sectors. These include: improving producer incentives, the marketing system (for cereals particularly), and the distribution system for agricultual inputs; directing more resources to research activities; and strengthening the credit system.

52. Nigeria's adoption of a food strategy in 1980 has given new emphasis to producer and consumer pricing, credit administration, and importation of agricultural inputs. However, the balance-of-payments problems which Nigeria has faced in the past several years appear to have adversely affected the implementation of that country's food strategy.

53. The Tanzanian Government recently published and adopted the Agricultural Policy of Tanzania and the Tanzania National Food Strategy. It gives high priority to the development of infrastructure, input supply, price review and marketing.

54. Zambia's food and agricultural development strategy also places emphasis on an efficient agricultural extension service, as well as development of research, storage, processing and marketing systems.

55. The foregoing paragraphs illustrate some of the positive actions which some of the member states are taking in addressing the improvement of agricultural services and institutions. There is, however, still much more to be done in this area.

E. Public expenditure on agricultural development

56. It is widely recognized that development strategies in many African countries did not accord appropriate priority to the development of agricultural sector, especially in the 1970s. One indication of this is the level of public expenditure that governments devoted to food and agricultural development relative to other activities.

57. LPA calls for public as well as private outlays in the food and agricultural sectors to be raised. The Plan estimated need for an investment of US$22 000 million during 1980-85 for the identified

programme of development activities. This implies an annual expenditure of US$4 400 million per annum. It was envisaged that approximately 50 percent of these outlays would be financed from domestic sources and the balance from external donor sources.

58. Resource flows from external sources, although below requirements, have shown a steady growth in recent years. From Table 5 it will be seen that concessional and non-concessional assistance to agriculture from bilateral and multilateral sources rose from US$1 100 million in 1976 to US$3 400 million in 1982.

59. FAO recently completed a study that provides useful insights about the trend of public expenditures for agriculture by 21 selected African governments. 1/ The average budgeted amount per capita per year was US$19 in the period 1978-82, of which about two-thirds was in the form of capital expenditure and one-third was current expenditure. This per capita amount was lower than in the Near East and Latin America but higher than in the Asia and Pacific region.

60. For 14 African countries for which information was available, government development and recurrent expenditure budgets represented more than half - 51 percent - of total GDP. The individual country figures are shown in Table 6.

61. The share of public expenditure on the agriculture sector averaged seven percent in the 1978-82 period. If the FAO survey results are indicative (see Table 7), African countries have been devoting low percentages of public resources to agriculture relative to those in Asia and the Pacific. Among the 14 countries (see Table 8), Somalia devoted the largest share of resources to agriculture, and Kenya and the Gambia to a lesser degree. However, even in these countries the share of agriculture in total expenditure on all sectors was far below the contribution of the sector to total GDP.

62. African governments have not yet prescribed an appropriate parameter for public expenditure on food and agriculture. It has been noted, however, that the allocation is typically 10-15 percent in nations in the developing world which have successfully pursued agricultural development strategies and resolved their food problems to a large extent. 2/

1/ The survey covered 57 countries of which 21 were in Africa. Data on public expenditures for all sectors were obtainable for only 14 of the African countries. Results have been reported in Public Expenditure on Agriculture in Developing Countries 1978-82, FAO, Rome, 1984.

2/ Carl K. Eicher, West Africa's Agrarian Crisis, 1983, p. 29.

TABLE 5

BILATERAL AND MULTILATERAL ASSISTANCE TO AGRICULTURE IN AFRICA a/

		US$ millions committed in			
		1976	1980	1981	1982
BOTH CONCESSIONAL AND NON-CONCESSIONAL					
Bilateral		557	1 421	1 674	2 318
of which	DAC/EEC	484	1 360	1 562	1 864
Multilateral		575	1 233	1 468	1 100
of which	IBRD	196	233	449	199
	IDA	240	477	462	332
Total		1 132	2 654	3 142	3 418
CONCESSIONAL ONLY					
Bilateral		464	1 323	1 600	2 200
of which	DAC/EEC	391	1 262	1 488	1 766
Multilateral		468	891	778	730
of which	IDA	240	477	462	332
	ADF	42	158	182	149
Total		932	2 214	2 378	2 950

Source: FAO external assistance data bank, Rome

a/ The figures shown are budgeted commitments and not actual expenditures. They are for the "broad" definition of agriculture and, in addition to the activities covered in the LPA estimates of requirements, include manufacturing of agricultural inputs, agri-industries, river basin and regional development, rural infrastructure and rural development. Grants for technical assistance are not included.

TABLE 6

BUDGETED EXPENDITURE ON ALL SECTORS AS A PROPORTION OF TOTAL GDP, 14 AFRICAN COUNTRIES, 1978-81

Country	Percent of GDP in 1978	1979	1980	1981	Average percent 1978-81
Algeria	77.4	73.7	69.4	71.0	72.3
Benin	78.3	75.3	59.7	52.9	65.7
Cameroon, Rep. of	20.9	26.8	24.0	18.6	22.5
Central African Rep.	19.9	16.5	15.7	18.1	17.4
Gabon	35.4	33.0	29.8	52.5	37.7
The Gambia	79.2	59.6	51.1	42.5	56.6
Kenya	36.7	45.0	39.0	36.7	39.3
Liberia	26.2	34.5	31.5	40.1	33.3
Mali	15.5	13.6	14.2	14.3	14.3
Mauritius	34.4	35.7	33.6	35.6	34.8
Morocco	35.2	35.3	33.0	36.6	34.9
Somalia	35.3	24.6	23.1	19.7	25.1
Swaziland	93.9	72.2	77.8	62.4	74.7
Tanzania, United Rep.	27.0	37.0	38.8	40.9	36.2

Source: Public Expenditure on Agriculture in Developing Countries 1978-82, FAO, Rome, 1984

TABLE 7

SHARE OF AGRICULTURE IN BUDGETED PUBLIC EXPENDITURE ON ALL SECTORS a/

Regional and country grouping	Number of countries	Percent allocated to agriculture in					Average percent 1978-82
		1978	1979	1980	1981	1982	
REGIONAL GROUPINGS							
Africa	14	6.5	7.0	7.0	7.6	6.7	7.0
Asia and Pacific	3	9.0	11.3	11.3	12.3	12.0	11.3
Latin America	15	6.0	6.5	6.6	6.5	6.7	6.5
Near East	2	7.3	8.0	6.9	7.7	7.3	7.5
ECONOMIC GROUPINGS							
LDCs	7	12.1	10.8	11.3	12.3	11.3	11.5
Non LDCs	27	6.3	6.9	7.0	7.0	7.3	6.9
Low-income	8	12.4	13.2	15.1	16.4	17.9	15.0
Non low-income	26	6.3	6.9	6.9	6.9	7.1	6.8
ALL COUNTRIES	34	6.4	7.0	7.1	7.1	7.3	7.0

Source: FAO study of public expenditures in agriculture, Rome

a/ Data on public expenditure for all sectors were available for only 34 of the 57 countries surveyed. Annual comparisons were made using 1978 US$ constant prices.

TABLE 8

SHARE OF AGRICULTURE IN TOTAL PUBLIC EXPENDITURE AND TOTAL GDP, 14 AFRICAN COUNTRIES, AVERAGE 1978-82

Country	Agriculture as % of		Ratio of expenditure % to GDP %
	Total expenditure	Total GDP	
Algeria	5.9	6.4	.92
Benin	9.0	47.8	.19
Cameroon, Rep. of	8.8	31.9	.28
Central African Rep.	5.6	35.7	.16
Gabon	2.1	5.4	.39
The Gambia	13.6	31.8	.43
Kenya	15.5	36.4	.43
Liberia	10.0	34.6	.29
Mali	12.4	41.4	.30
Mauritius	10.4	12.7	.82
Morocco	7.0	17.3	.40
Somalia	30.7	60.2	.51
Swaziland	11.7	n.a.	n.a.
Tanzania, United Rep.	9.3	53.2	.17

Source: FAO survey on public expenditures on agriculture, Rome

F. INTRA-AFRICAN TRADE

63. LPA emphasized the desirability of promotion of intra-African trade which would promote regional self-reliance. Tables 9 and 10 provide an indication of transfers of agricultural items within Africa, to other developing countries and to the developed countries. It will be observed that the limited amounts of cereals exported by African countries went mainly to developing countries outside the African region. Considering agricultural items as a whole, African exports went predominantly to the developed countries. Subregional groupings to help facilitate intra-African trade are now evolving, but their potentials cannot reach full fruition until national policies, production capacities and trade structures are adapted accordingly.

TABLE 9

DEVELOPING AFRICA'S EXPORTS OF CEREALS
1970-82

	US$ million				
	1970	1979	1980	1981	1982
Intra-African transfer	29	56	50	36	38
To all developing countries	50	116	136	119	125
To all developed countries	71	51	38	31	15
Total	121	170	174	150	141

Source: UN, Monthly Bulletin of Statistics, May 1984

G. Implementation and monitoring

64. As stated above, formulation of food and agricultural development strategies is only the beginning of a formidable task of effecting actual development. The strategies have to be translated into specific policies, and development projects and programmes have to be implemented for the achievement of agreed objectives and targets. Implementation monitoring systems must be established for maintaining surveillance on development activities.

TABLE 10

DEVELOPING AFRICA'S AGRICULTURAL EXPORTS
1970-82

	US$ thousand million	
	1970	1982
Intra-African transfer	0.3	1.0
To all developing countries	-	2.9
To all developed countries	5.4	11.7
Total	6.1	14.6

Source: UN, Monthly Bulletin of Statistics, May 1984

65. For the LPA agricultural chapter, FAO has developed a set of indices for monitoring trends in the achievement of targets and objectives. 1/

66. The indices cover population, gross domestic product, land use, domestic agricultural production, domestic food production, agriculture imports/exports, food imports/exports, fish catches and landings and forestry production and exploitation. In addition to these, methodologies have been formulated by FAO to measure post-harvest food losses, food security levels and improved agricultural practices, forestry management, research extension service levels, and agricultural services resources.

67. Some governments in the region are reported to be establishing these systems, but this is an area where some technical and financial assistance may be required so as to enhance the effectiveness of such monitoring and to mesh it well with other information needs.

H. Food and agriculture development strategy formulation

68. The awareness of governments in the Africa region of the food and agricultural development crisis cannot be questioned. In spite of this, the governments have not succeeded in translating their

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1/ FAO Document ARC/84/5, Monitoring the Implementation of the Agricultural Part of the Lagos Plan of Action, April 1984.

aspiration to address this crisis into detailed programmes of action. The latter is a pre-condition for success in achieving LPA objectives and targets. However, initial measures are now being taken by governments. It is known that some governments have formulated general but comprehensive agricultural development strategies.

69. The governments of 12 countries have compiled and adopted cohesive food strategies as defined by the World Food Council. Some of them are reported to have commenced implementing certain elements of their strategies. The second category consists of countries which have made some progress in preparing the food and agricultural development strategies. The last group comprises countries which are in the early stages of compiling the strategies. The majority of the countries fall in this category. The foregoing demonstrates that governments in Africa are making headway in addressing the food and agricultural development of the continent in a more comprehensive manner than previously. The effort should be sustained.

I. Remarks on assessing performance

70. It is difficult to ascribe much that has or has not happened in 1978-85 to AFPLAN/LPA's existence, but the Plan does provide a food/agriculture production development framework around which to focus some key variables, targets and measures (or indications) of special relevance to stated goals. Policy implementation may require some time to take effect or "gel" so that the evaluation of the period under review may not reflect adequately the processes put in place.

71. The LPA as a development strategy and a statement of overreaching purpose for African development is normative in character in terms of strategy, policy and planning. But even when policies are formulated and resources made available, results are not automatic. Skilful implementation and effective meshing with other political-economic consensus are required. The dynamics of the LPA must, therefore, be fully recognized and these more elusive variables taken into account.

72. Another factor to be noted in such assessments as this is that the evaluation is based on available data. These data have their limitations, especially since many economic activities and transactions often escape official government marketing channels. This is especially so when it is not worth the farmer's while to grow a surplus for the official markets, fueling evermore a dynamic unofficial food economy. In that kind of situation, much may be happening with respect to those who are producing food and those who are benefiting which is not reported.

IV. POSSIBLE CAUSES OF POOR PERFORMANCE

73. There is no doubt that the performances of African economies and their food and agriculture sectors have been below the expectations of the African leaders as outlined in 1980 in the LPA. For the food and agricultural sector, a full discussion of the causes of this poor performance would ideally examine a wide range of subjects relating to food and agricultural development strategies, policies, planning, and sector management in each of the African countries. This is not possible here. However, available information does point to some problems that broadly explain the causes of the failure of the region to achieve the targets that LPA prescribed for the period 1980-85. These can be discussed under the headings of domestic and external causes.

A. Domestic causes

1. Structural characteristics of the agricultural sector

74. The poor performance of the food and agriculture sector arises principally from development strategies of the 1960s and 1970s which gave the sector a lower-priority ranking in African economies than industry and services. Those strategies have created structural problems, including infrastructure which is not attuned to domestic food needs. Transport, communication, storage, marketing and input-supply systems are inadequate to serve the majority of farmers in Africa, particularly small farmers in outlying places. Trained manpower to provide important agricultural services - including, among others, planning, extension, research, marketing, and pest control - is in short supply.

2. Leadership commitment

75. Secondly, to overcome the constraints to food and agricultural development created by the structural features of the sector, it was necessary that governments in Africa make a break with the past developmental strategies and give agriculture the highest ranking among sectors in a sustained manner. Although there has been obvious concern since 1978 by governments for this sector, the reforms to bring about the desired structural changes have not been initiated. The amounts of resources directed to the sector have remained relatively low. In the ECA document on proposed actions under LPA for 1986-90 (see E/ECA/CM.11/39), some priority aspects of food and agriculture requiring concerted leadership attention are underscored.

3. Persistent drought

76. Thirdly, although it can be argued that droughts frequently afflict African agriculture, the severe droughts which have adversely

affected production in many parts of Africa in the last five years have aggravated the precarious situation of food and agriculture on the continent. Development strategies and policies in the region have not always taken into account the likelihood and the consequences of severe drought in specific localities. Existing organizational mechanisms have sometimes impaired effectiveness in dealing with resulting hardships and needs for rehabilitation.

4. Rapid Population Growth

77. The rapid population growth, another phenomenon which can be anticipated, also accounts for the aggravation of the food and agricultural problem of the continent. Per capita growth rates of investment and output are lowered by the high rate of population growth taking place in Africa. Demand for food has risen rapidly, especially in association with migration of rural people to large cities and urbanization of food tastes.

B. External causes

78. Phenomena external to African economies which have adverse effects on the performance of the food and agricultural sector are also structural in character. Africa's exports, which are predominantly agricultural commodities, face a low annual rate of growth in the international markets. Imports to African economies, on the other hand, have been characterized with rapid annual rates of growth. This has resulted in large negative balances in the current accounts of African countries (see Table 11). This structural problem causes in turn adverse terms of trade between African countries and developed countries with which they trade.

79. Table 12 shows changes of terms of trade for developing countries for two periods since 1973. Sharp declines in Africa's terms of trade relative to Asia and middle-income countries can be observed. The foreign-exchange shortage which arises from this situation causes African governments to restrict imports. In many countries, import restrictions have affected importation of capital goods for the agricultural sector as well as importation of inputs such as fertilizers and pesticides which are vital for agricultural production.

80. Secondly, as indicated in an earlier section, external assistance for development of the agricultural sector has not been maintained at the level envisaged in the LPA. The Plan assumed the annual inflow into the region of external resources to finance food and agricultural development of US$2 200 million. This target has not been attained in any year between 1980 and 1984. Data on external assistance to agriculture are given in Table 5.

TABLE 11

NON-OIL DEVELOPING COUNTRIES IN AFRICA (EXCLUDING SOUTH AFRICA)
BALANCE OF PAYMENTS, 1978-83

	US$ thousand million					
	1978	1979	1980	1981	1982	1983
Africa (excluding South Africa)						
Exports (f.o.b.)	18.3	23.9	27.7	25.2	23.3	24.7
Imports (f.o.b.)	-22.8	-26.9	-32.7	-31.5	-29.1	-30.3
Trade balance	-3.7	-3.0	-5.1	-6.3	-5.9	-5.6
Net services and private transfers	-5.7	-6.9	-7.7	-7.7	-7.3	-7.8
Balance on current account	-9.4	-9.9	-12.9	-14.0	-13.2	-13.4
Net official transfers	2.5	3.1	3.2	3.6	3.2	3.2
Net capital inflows	6.4	6.6	7.2	6.8	6.8	7.3
Overall balance	-0.4	-0.2	-2.4	-3.6	-3.2	-2.9

Source: IMF Annual Report, 1983, p. 189

TABLE 12

TERMS OF TRADE OF DEVELOPING COUNTRIES, 1973-82

	Change in terms of trade (percent) a/		Change in purchasing power of exports (percent) b/	
Developing countries	1973-76	1979-82	1973-76	1979-82
LOW-INCOME				
Asia	12.1	-3.2	58.5	15.7
Africa	-15.3	-13.8	-18.7	-3.5
MIDDLE-INCOME				
Oil importers	-9.5	-10.7	4.5	2.5
Oil exporters	59.9	31.8	71.0	11.5

Source: World Bank Annual Report, 1983, p. 13

a/ Export unit value index divided by import unit value index.
b/ Product of terms of trade and export quantum index.

C. Feasibility of LPA targets

81. The failure of countries in Africa to achieve the LPA targets during the 1980-85 period raises the question whether these targets were reasonable in the first place. An ECA perspective study which attempted to translate LPA's strategy into specific targets recommended a 4.3 percent annual rate of growth in cereal production; a 3.0 percent increase in production of roots, tubers and pulses; and a 4.2 percent increase in meat production. 1/ For cash export crops, the following annual rates of production growth were recommended: coffee 3.9 percent, cotton 7.1 percent, cocoa 3.1 percent, tea 4.2 percent, and tobacco 4.1 percent. These growth rates were derived after careful evaluation of production potentials. The study concluded that they were feasible if resources and institutions could be effectively mobilized. Similar considerations were taken into account for establishing needed levels of expenditure in the food and agricultural sector. The preceding discussion of non-achievement of the LPA targets has taken cognizance of this.

V. PROSPECTS FOR IMPROVED FOOD AND AGRICULTURE SITUATION

82. Emergency situations in much of Africa have forced many countries to direct attention to activities which bear quick results. However, the severity of the food and agricultural problems facing the region demands that the continent's attention should place more focus on longer-term strategies, which not only address Africa's current food needs but also prepare for sustained increases in production of food and raw materials. As suggested in the paper on proposed LPA emphases for 1986-90, research, development and introduction of technologies and institutions adapted to African conditions should be considered as high-priority measures which merit considerable investment.

83. The adoption of AFPLAN, the Monrovia Declaration and the LPA is in itself a most promising prospect indicating the willingness and determination of the African leadership to solve these problems. In addition, the African governments have made some other important collective declarations on the current crisis facing the continent. The 19th Session of the ECA Conference of Ministers adopted a Special Memorandum on Africa's Economic and Social Crisis. During their Special ECA/OAU/ADB Meeting, the African Ministers of Finance adopted the Addis Ababa Declaration on Africa's External Indebtedness. The African Inter-Ministerial Committee for Food presented to the 10th Ministerial Session of the WFC what they considered was the basis for future action with respect to food and agriculture in Africa. In

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1/ ECA and Africa's Development 1983-2008: A Preliminary Perspective Study, April 1983.

July 1984, the 13th FAO Regional Conference for Africa adopted the Harare Declaration on the Food Crisis in Africa. The same Conference requested FAO to submit to the next Conference an in-depth study on Africa's food and agricultural problems. 1/

84. The daunting problems of food and agriculture currently facing the region have made some countries turn their attention more seriously to the development of this sector, including finding the root causes for the manacing food shortages. What emerged from the recent 20th OAU Summit was yet another expression of the determination to come to grips with the region's long neglected economic ills. It is to be recalled that, in adopting the Freetown Declaration, the 9th FAO Regional Conference expressed full determination "to maximize our efforts to develop agriculture in our continent, and give the latter the role it deserves in the world as a major food and agriculture producing continent". Toward this end, the member nations of FAO in Africa undertook, among other things, "to accord the food and agricultural sector a key position, commensurate with its primary role in our economies, in particular through the allocation of more investment resources...."

85. The objectives and targets of the LPA are within the African region's potential to attain; now the declared intentions should be matched with resolute action. Unfortunately, however, the limited attention given in the past to the food and agriculture sector has meant that only meagre resources are allocated to the sector. Some agricultural ministries and other institutions have retarded the development of agriculture through ill-conceived policies. The LPA expression of much needed political will cannot be fruitful, unless substantial changes in inter-sectoral imbalances are forthcoming through a deliberate human and financial resources reallocation policy. Reforms in national policies with respect to pricing, urban-biased development, social and institutional structures, and the tenurial systems in particular are essential initiatives in the direction of sound development policies.

86. After more than two decades of independence, African rain-fed crops produced for domestic use continue to suffer disproportionately, as compared to export crops, from official neglect of agriculture. The indigenous grains such as sorghum and millet have received the least research. Indeed, the African varieties of rice, millet, sorghum and barley which account for nearly 50 percent of the region's

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1/ The ECA Resolution 112 (VI) of 2 March 1964, on the transition of African agriculture from subsistence to market agriculture, requested the Executive Secretary, among other things, to collaborate with FAO and other appropriate agencies "in analysing the economic and technical factors involved in the modernization of agriculture and exploring policy measures which Governments may use to promote and regulate the development of agriculture to meet the growing and changing demands of the African economy."

grain production yield at a rate not much better than they did in the 1950s.

87. The African continent has a massive land area estimated to cover about 2 878 million hectares, excluding South Africa. This gives the region a very large potential land base for rain-fed agriculture. According to FAO 1/, most of the area (1 858 million ha) is classified as unsuitable and some 231 million ha are regarded as marginal land while 789 million ha are climatically suitable for rain-fed crop production. However, Africa cultivated only 168 million ha, or just over 20 percent, of this potential cropland in 1975. The area under arable and permanent crops has not been expanding much, at least not as much as population growth would dictate. In Africa this area grew by only 0.78 percent annually between 1969-71 and 1980 as compared to South America's 1.2 percent. The area under cultivation in Africa is expected to increase to 204 million ha and 248 million ha in 2000 and 2025 respectively.

88. The findings of the FAO study give results on potential based on three levels of input, namely, low, intermediate and high. Using fertilizer as a proxy for inputs, the low level is associated with a complete lack of fertilizer use; the intermediate level implies about 80 kg of nutrient/ha/crop for cereals; the high level is about double this amount.

89. In 1980, Africa was using 9.7 kg of nutrients per hectare, most of it on cash crops for exports. In the Near East, fertilizer use averaged 34 kg/ha and the Far East, 38 kg/ha, while the Latin American countries applied about 46 kg/ha. Africa's use of fertilizer rose to 10 kg/ha of arable land in 1981/82, but declined to 9 kg during the period 1982/83.

90. The large unused reserves of land meant that, in 1975, Africa was capable of supporting three times the actual population of that year with low input levels (or about 1 230 million people). With intermediate inputs, Africa's land resources could support nearly 12 times the 1975 population. With high inputs of technology, the population-supporting capacity of the region would increase almost 34 times. Moreover, this has to be viewed against another indicator of the performance of agriculture, i.e. average yields achieved on African farms. As shown in Table 13, yields of the most important African food crops in 1979-83 either stagnated or fell below what could be achieved, even with low levels of input use.

1/ FAO/UNFPA/IIASA Report, Potential Population-Supporting Capacities of lands in the Developing World, Rome, 1983 and FAO, Land, Food and People, Rome, 1984.

TABLE 13

YIELD INCREASES FOR SELECTED CROPS IN AFRICA AND OTHER DEVELOPING REGIONS

Region and crop	Yield (kg per hectare)				1983 increase over 1979-81 (kg/ha)
	1969-71	1979-81	1982	1983	
AFRICA					
Sorghum	660	670	710	620	-50
Maize	1 000	950	1 090	980	+30
Millet	580	590	380	530	-60
Cassava	6 640	6 370	6 200	6 000	-370
Rice	--	1 380 a/	1 440	1 360	+20
NEAR EAST					
Wheat	1 070	1 460	--	--	--
FAR EAST					
Wheat	1 200	1 550	--	--	--
Rice	1 840	2 190	2 250	3 050	+860
LATIN AMERICA					
Wheat	1 390	1 490	--	--	--
Maize	1 430	1 820	1 870	1 800	-20

Source: Compiled from FAO Production Yearbook, 1981 and 1983

a/ This figure is for 1981.

91. Table 13 demonstrates that these yields could be substantially increased, but this involves moving to a much higher level of technological application, with increased use of improved packages of inputs. This in turn calls for effective adaptive research for crops, livestock, fishery and forestry subsectors. Accessibility of these inputs by farmers is most imperative. The development of small-scale irrigation schemes whose main advantages lie in their low cost, seasonal flexibility and farmers' participation and control, as well as research to develop drought-resistant and early-maturing varieties and breeds, has received minimum government support. And yet these offer promising opportunities to enable the African countries to reduce their dependency on the vicissitudes of the environment.

92. With regard to investment, both domestic and external allocations of resources to food and agriculture have been below the critical quantum required to get this sector to take off (AFPLAN/LPA's US$4 400 million a year in 1979 prices). To reach the implied levels of technological use, additional resources will be required.

93. Commitments of assistance to African food and agriculture have been increasing. The total from both multilateral and bilateral sources (including concessional and non-concessional, but excluding technical assistance grants) which was directly for food and agricultural production increased from US$985 million in 1978 to US$1 602 million in 1982. The additional amounts indirectly related to this (for processing agricultural inputs, rural/regional/river development, and forestry) increased from US$770 million in 1978 to US$1 815 million in 1982. (See Appendices VI and VII for individual country details.)

94. However, disbursements are a more accurate depiction of actual assistance flows. Disbursements to the African countries as a group between 1977 and 1983 are shown in Table 14. These reflect assistance commitments made from 1974 onwards, and they include assistance from multilateral agencies only. The lag between commitments and actual disbursements is an important factor explaining the rate of flow of external assistance to agriculture and the performance of the sector.

VI. CONCLUSION

95. This review has revealed a number of important issues. The main one is that, for most of Africa, the targets of the LPA have remained largely elusive. The production levels for crops, livestock, fishery and forestry as set out in the LPA are far from being achieved. No significant progress has been made toward reduction of food losses. Food insecurity has worsened and the laying down of foundations for food self-sufficiency is yet to be done. Current economic policies continue to owe their origins in the past and, therefore, have not changed much. As a consequence, institutions, infrastructures and investment patterns follow such past legacies. In addition to the non-realization of the LPA targets, several internal and external factors have also been spelt out in this report.

TABLE 14

DISBURSEMENTS OF MULTILATERAL LENDING TO AGRICULTURE
IN DEVELOPING AFRICA, 1977-83 a/

Purpose	US$ million disbursed in						
	1977	1978	1979	1980	1981	1982	1983
DIRECT TO AGRICULTURE NARROW DEFINITION b/							
Land/water development	25	46	79	57	55	71	52
Research/training/extension	1	1	1	3	6	8	18
Inputs	0	1	3	12	11	35	23
Agricultural services	12	34	48	42	51	62	72
Crop production	44	62	79	125	101	27	151
Livestock	15	12	14	20	26	27	45
Fisheries	0	5	7	8	4	6	6
Agriculture unallocated	37	51	52	79	103	159	246
Total	134	210	282	345	355	468	612
INDIRECT TO AGRICULTURE							
Forestry	6	15	16	17	20	18	25
Manufacture of agricultural inputs	19	13	36	9	5	7	11
Agro-industries	6	23	21	16	31	25	69
Rural development/infra-structure	27	55	80	104	89	104	164
Regional/river development	2	11	21	16	14	12	20
Total	59	117	174	162	159	165	289
TOTAL DIRECT AND INDIRECT	193	327	456	507	514	633	901

Source: FAO data bank on external assistance to agriculture, Rome

a/ Reflects concessional and non-concessional loan commitments made between 1974 and 1983. Excludes technical assistance grants.

b/ Narrow definition in this table excludes forestry so as to be closer to the concept of food production.

96. The implementation progressed slowly partly because of the various crises that have hit Africa. Assistance from the international community will, therefore, continue to be needed, not only for combating emergency situations but also for rehabilitation of post-emergency agriculture, for support of African countries' policy and strategy adjustments, and for implementation of needed reforms.

97. In the immediate future, food supplies will remain critical for many countries. Hence the need for continued food aid. Already, no fewer than twenty countries are facing exceptional food availability problems in 1984/85. The solution to this endemic problem will depend less on technical answers than on drastic changes in political attitudes of countries. Improved future prospects will heavily depend on a new and far-reaching political commitment to accord priority given to food and agricultural investment. As Africa further urbanizes and modernizes, the broader links (industry, science and technology, manpower, etc.) which relate to the agriculture sector, will become increasingly important.

98. It is against this background that the food and agriculture problems and policy issues ought to be analysed. Discussion of proposals for LPA/Agriculture 1986-90 should therefore pay increased attention to the above matters.

AGRICULTURAL PRODUCTION TRENDS IN AFRICA

AFRICA DEVELOPING

1961/65 - 1983

DESCRIPTION	UNIT	1961/65	1970	1975	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1969-82	1971-75	1971-80	1978-82
LAND USE	1000HA											
TOTAL LAND			2331328	2331240	2331244	2331244						
ARABLE+PERM.CROPS LAND			139430	145534	150597	151816						
IRRIGATED LAND			1799	2228	2598	2542						
FORESTS & WOODLAND			668619	656387	642685	639873						
POPULATION	1000											
TOTAL		236438	283575	325889	377565	389218	401337	413924	2.9	2.8	2.9	3.1
AGRICULTURAL		183361	209351	230344	254028	259002	264148	269463	2.0	1.9	2.0	2.0
LABOUR FORCE	1000											
TOTAL		99934	115921	129545	145673	149300	153051	156941	2.3	2.3	2.3	2.5
AGRICULTURAL		78965	87597	93942	100754	102168	103641	105151	1.4	1.4	1.4	1.4
NATIONAL ACCOUNTS	MILL $											
TOTAL GDP	CURRENT											
AGRICULTURAL GDP												
PRODUCTION												
AGRIC. PRODUCTION	1000MT											
TOTAL CEREALS		36976	41929	47216	48511	47820	49236	45613	1.1	1.6	1.2	.7
ROOT CROPS		55541	67141	75572	80753	81645	84799	84869	1.9	3.2	2.0	2.3
TOTAL PULSES		3366	4523	4773	4763	4825	5168	5180	1.4	3.8	2.0	1.3
OIL CROPS		10311	11058	11410	10530	10623	10991	10423	-.5	-1.1	-1.1	2.0
TOTAL MEAT		3011	3710	3818	4615	4693	4727	4791	2.4	.7	2.8	2.1
MILK TOTAL		5188	6228	6561	7502	7653	8042	8284	2.1	.4	2.4	1.9
LIVESTOCK (NUMBER)	1000											
CATTLE		108544	124805	126667	135309	136073	138649	140178	.9	-.2	1.0	.8
SHEEP		92574	113048	114355	126614	126572	129457	131870	1.1	-.2	1.1	1.9
GOATS		103360	119351	117239	129042	129774	132374	134943	.9	-.7	1.1	1.1
PIGS		4346	5753	6959	8585	8625	8988	9098	3.7	3.2	3.6	3.9
FISHERY PRODUCTION	1000MT											
FRESHWATER & DIADROM			1195	1288	1302	1289	1256		1.4	1.6	1.3	-2.0
MARINE FISH			1497	1586	1551	1662	1475		-.1	.2	-1.9	-1.1
SHELLFISH			35	56	69	83	75		7.2	9.5	7.4	4.9
AQUATIC PLANTS			7	6	5	5			1.9	-3.0	-1.2	-.9
FORESTRY PRODUCTION												
FUELWOOD & CHARCOAL	1000CM	203715	233774	268785	312787	321682	330659		3.0	2.9	3.0	2.9
INDUSTRIAL ROUNDWOOD	1000CM	21609	29409	30975	38919	38265	38997		2.5	.2	2.7	1.6
SAWNWOOD & PANELS	1000CM	2429	3753	4855	7116	7111	7258		6.1	6.3	6.5	5.1
PAPER	1000MT	92	172	218	352	356	359		7.4	4.6	8.5	5.2
MAJOR COMMODITIES												
(AGR+FI+FO PRODUCTION)												
CASSAVA	1000MT	32892	39106	43333	46008	47748	49494	48812				
YAMS	1000MT	14065	17426	20065	20808	20866	21488	22141				
IND CATTMEAT	1000MT	1425	1762	1721	1958	1984	2050	2064				
FRWTR DIAD F	1000MT		1195	1288	1302	1289	1256					
IND CHCKMEAT		269	379	501	771	782	851	898				
VEGETABLES F	1000MT	4548	5290	6024	7198	7269	7580	7811				
MAIZE	1000MT	9878	12003	15546	13801	15268	14853	13912				
HEN EGGS	MT	304	388	460	620	655	706	741				
RICE, PADDY	1000MT	3641	4765	5553	6082	6133	6195	6006				
COW MILK	1000MT	3812	4601	4925	5665	5796	6160	6366				
INDICES OF PRODUCTION	1974-76 =100											
FOOD PRODUCTION		76	92	100	109	110	115	115	1.8	1.8	1.8	2.4
AGRIC. PRODUCTION		76	93	100	109	110	114	114	1.7	1.8	1.7	2.4
PER CAPUT FOOD PROD.		105	106	100	95	93	93	90	-1.1	-1.0	-1.1	-.6
PER CAPUT AGRIC. PROD.		105	107	100	94	92	92	90	-1.2	-1.1	-1.2	-.7
FOOD SUPPLY /CAPUT/DAY												
CALORIES	NUMBER		2107	2169	2235	2246						
PROTEINS	GRAMS		54.7	53.8	55.0	55.1						
FATS	GRAMS		40.1	40.1	43.1	43.4						
CALOR. AS % OF REQUIR.	PERCENT		93.7	92.9	95.8	96.2						
MAJOR FOOD CONSUMED												
(SHARE ON TOT.CALOR.)	PERCENT											
ROOTS+TUBERS			21.7	21.4	19.8	19.4						
MILLET+SORG.			15.5	14.4	13.2	13.1						
MAIZE			12.5	13.2	12.4	12.2						
WHEAT			8.6	9.7	11.1	11.3						
OIL AND FAT			6.9	7.3	8.5	8.6						
MEANS OF PRODUCTION												
TRACTORS AGRIC. IN USE	NUMBER	87955	155591	189794	213489	217702			3.2	4.2	3.0	2.2
FERTILIZER PRODUCTION	1000MT	146	567	834	922	1017			3.2	1.0	-1.0	6.5
FERTILIZER CONSUMPTION	1000MT	267	690	953	1430	1496			7.2	4.5	5.3	12.2

APPENDIX I cont'd

AFRICA DEVELOPING

DESCRIPTION	UNIT	1961/65	1970	1975	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1969-82	1971-75	1971-80	1978-82
EXTERNAL TRADE												
EXPORTS	MILL $											
TOTAL MERCHANDISE		5154	9251	26687	68388	56307	49464					
AGRIC. PRODUCTS		2585	3984	6546	10665	9757	8192					
MEAT		47	81	150	116	122	105					
DAIRY PRODUCTS		9	9	12	8	5	4					
CEREALS		71	67	135	67	101	99					
OIL SEEDS		312	233	218	164	128	113					
VEGETABLE OILS		186	202	403	319	248	293					
AGRIC. REQUISITES		131	204	1462	1316	1274						
FISHERY PRODUCTS			94	230	432	577	580					
FORESTRY PRODUCTS		233	339	549	1144	906	869					
MAJOR COMMODITIES												
(SHARE ON AG+FI+FC)	PERCENT											
COFFEE,GREEN		14.6	18.5	17.2	22.9	19.0	22.3					
COCOA BEANS		12.4	15.8	16.2	18.1	14.9	12.6					
SUGAR,C. RAW		4.2	3.7	6.8	5.9	6.2	5.9					
SAWL VEN NC		4.6	4.8	4.7	6.3	5.6	5.9					
COTTON LINT		5.0	5.6	3.4	4.4	4.9	4.7					
TOBACCO		4.4	2.2	2.9	2.8	4.6	4.7					
CATTLE		2.4	2.4	1.8	2.5	3.5	3.9					
TEA		1.6	2.0	1.9	2.3	2.5	2.7					
ORANGES		2.3	1.6	1.4	1.8	1.5	1.6					
COCOA BUTTER		.4	1.5	2.3	1.8	1.5	1.5					
IMPORTS	MILL $											
TOTAL MERCHANDISE		5234	9461	30050	61749	63288	58950					
AGRIC. PRODUCTS		1163	1559	5255	10177	11037	10458					
MEAT		56	49	108	409	447	496					
DAIRY PRODUCTS		101	155	455	1095	1251	1201					
CEREALS		289	429	1748	3879	4208	3987					
OIL SEEDS		21	20	85	62	54	49					
VEGETABLE OILS		55	94	360	684	750	711					
AGRIC. REQUISITES		108	252	962	1390	1371						
FISHERY PRODUCTS			86	240	738	735	539					
FORESTRY PRODUCTS		107	222	576	913	912	927					
MAJOR COMMODITIES												
(SHARE ON AG+FI+FC)	PERCENT											
WHEAT		7.1	8.5	15.2	12.5	11.3	12.1					
RICE MLD RICE		5.8	5.1	3.9	7.5	8.6	8.2					
SUGAR REFINED		7.6	5.6	8.6	7.9	8.0	7.5					
FLOUR WHEAT		3.9	3.1	3.0	4.4	4.7	4.3					
MAIZE		1.2	1.5	2.5	4.2	4.3	4.1					
WH MILK,EVAP		2.6	2.8	2.5	2.9	3.1	3.1					
FINFISH FRZ			1.1	1.2	3.1	2.9	2.3					
OTHER PAPER		2.9	4.3	3.6	2.6	2.4	2.6					
SUGAR,C. RAW		5.6	2.7	9.0	2.5	3.0	1.9					
MILK SK DR C		1.5	2.0	2.3	2.4	2.4	2.4					
INDICES OF TRADE	1974-76											
AGRIC. PRODUCTS	=100											
VALUE OF EXPORT		43	57	91	150	121	113		8.9	17.5	12.8	-5.6
VOLUME OF EXPORT		92	105	95	87	87	86		-1.9	-1.6	-2.6	-.7
UNIT VALUE OF EXPORT		43	53	97	176	143	131		11.2	19.5	16.2	-5.2
VALUE OF IMPORT		25	32	111	213	231	217		19.3	35.7	20.9	12.2
VOLUME OF IMPORT		60	76	100	180	194	203		9.2	4.4	9.5	7.6
UNIT VALUE OF IMPORT		40	41	111	126	122	109		9.5	28.7	10.8	3.9
FOOD PRODUCTS												
VALUE OF EXPORT		42	56	98	143	116	103		8.1	20.4	11.7	-6.1
VOLUME OF EXPORT		100	107	95	86	85	85		-2.3	-2.9	-3.1	-.9
UNIT VALUE OF EXPORT		38	50	104	167	138	120		10.9	24.5	15.7	-5.5
VALUE OF IMPORT		23	30	112	219	240	227		20.1	37.2	21.1	14.0
VOLUME OF IMPORT		59	76	99	193	206	218		9.8	3.6	10.0	8.1
UNIT VALUE OF IMPORT		39	38	114	121	120	105		9.7	31.1	10.3	5.6
SOCIOECONOMIC INDICATORS												
AGRGDP AS % TOTGDP												
AGRPOP AS % TOTPOP		78	70	71	67	67						
AGREXP AS % TOTEXP		58	43	25	16	16						
AGRIMP AS % TOTIMP		22	16	17	16	17						
AGREXP AS % TOTIMP		56	42	22	17	14						
ARABLE LAND AS% TOTLAND			6	6	6	7						
IRRIGATLAND AS% ARALAND			1	2	2	2						
AGRPOP PER ARALAND	NO/HA		1.5	1.6	1.7	1.7						
FERT USE PER ARALAND	KG/HA		5	7	9	10						
TRACTORS PER ARALAND	NO/000HA		1	1	1	1						

Source: ESS Computer Printout for Food and Agricultural Production, FAO, Rome

APPENDIX II

EXPONENTIAL GROWTH RATE PROD. INDICES DATE 11/12/84

SYS 11 COUNTRY AFRICA DEVELOPING PAGE 386

COMMODITY		69/84	69/76	77/84	71/80	71/75	76/80	80/84	74/84	80/81	81/82	82/83	83/84
POPULATION													
TOTAL	1000	3.040	2.890	3.142	3.025	2.692	3.149	3.135	3.124	3.134	3.128	3.132	3.151
FOOD													
GROSS PRODUC		1.940	1.788	1.995	2.124	1.921	2.297	1.026	1.936	1.653	4.003	-3.739	3.345
NET PRODUCTI		1.890	1.740	1.980	2.051	1.866	2.217	1.084	1.893	1.515	4.059	-3.662	3.579
P.CAPUT GROS		-1.067	-1.071	-1.111	-.874	-.942	-.828	-2.044	-1.152	-1.424	.850	-6.668	.192
PERCAPUT NET		-1.117	-1.118	-1.126	-.946	-.996	-.903	-1.987	-1.194	-1.566	.897	-6.583	.419
NON FOOD													
GROSS PRODUC		.241	.598	.568	-.132	.745	-.024	.218	.244	.592	-1.010	1.256	.147
NET PRODUCTI		.240	.603	.554	-.130	.718	-.036	.208	.240	.572	-1.039	1.268	.147
P.CAPUT GROS		-2.718	-2.216	-2.499	-3.067	-2.069	-3.116	-2.817	-2.800	-2.386	-3.956	-1.967	-2.797
PERCAPUT NET		-2.718	-2.222	-2.522	-3.063	-2.103	-3.087	-2.855	-2.803	-2.394	-4.138	-1.771	-2.992
AGRICULTURE													
GROSS PRODUC		1.846	1.719	1.920	1.597	1.853	2.171	.987	1.645	1.558	3.750	-3.495	3.186
NET PRODUCTI		1.792	1.671	1.899	1.919	1.793	2.087	1.038	1.798	1.459	3.767	-3.408	3.395
P.CAPUT GROS		-1.159	-1.138	-1.185	-.598	-1.009	-.946	-2.064	-1.240	-1.494	.598	-6.415	.023
PERCAPUT NET		-1.212	-1.185	-1.204	-1.074	-1.067	-1.029	-2.033	-1.287	-1.617	.634	-6.339	.235
CROPS													
GROSS PRODUC		1.436	1.732	1.422	1.579	1.962	1.531	.388	1.217	.906	3.813	-5.491	3.571
NET PRODUCTI		1.346	1.667	1.373	1.456	1.888	1.393	.427	1.125	.666	3.884	-5.500	4.308
P.CAPUT GROS		-1.557	-1.126	-1.668	-1.403	-.904	-1.566	-2.664	-1.650	-2.166	.668	-8.356	.784
PERCAPUT NET		-1.645	-1.189	-1.714	-1.522	-.976	-1.702	-2.625	-1.939	-2.378	.730	-8.370	1.131
CEREALS													
GROSS PRODUC		.912	1.795	-.026	1.638	1.422	1.523	-2.761	.194	-3.614	6.634	-13.298	1.355
NET PRODUCTI		.498	1.468	-.506	1.302	1.195	1.130	-3.179	-.294	-4.926	6.510	-13.990	2.065
P.CAPUT GROS		-2.064	-1.064	-3.075	-1.344	-1.424	-1.577	-5.734	-2.841	-6.506	3.350	-15.935	-1.693
PERCAPUT NET		-2.467	-1.381	-3.539	-1.670	-1.643	-1.954	-6.129	-3.316	-7.815	3.241	-16.551	-1.123
ROOTS AND TUBERS													
GROSS PRODUC		1.997	2.204	2.019	2.112	2.992	1.945	1.392	1.832	2.483	4.445	-6.013	7.505
NET PRODUCTI		2.048	2.362	2.054	2.124	3.103	1.924	1.429	1.837	2.430	4.950	-6.671	8.113
P.CAPUT GROS		-1.012	-.667	-1.088	-.887	.101	-1.167	-1.689	-1.253	-.607	1.264	-8.883	4.248
PERCAPUT NET		-.965	-.514	-1.058	-.876	.206	-1.187	-1.660	-1.250	-.703	1.759	-9.498	4.795
SUGAR CROPS													
GROSS PRODUC		4.444	2.709	5.117	4.287	1.372	4.699	3.557	5.374	10.707	7.769	-1.287	-1.958
NET PRODUCTI		4.380	2.633	4.966	4.278	1.444	4.636	3.312	5.300	10.706	7.615	-1.398	-2.738
P.CAPUT GROS		1.347	-.218	1.933	1.206	-1.492	1.540	.453	2.190	7.438	4.251	-4.077	-4.793
PERCAPUT NET		1.306	-.298	1.769	1.242	-1.376	1.499	.239	2.130	7.226	4.495	-4.302	-5.617
PULSES													
GROSS PRODUC		1.112	1.548	1.229	2.568	5.871	-.263	.811	.617	-.794	7.606	-2.626	-2.146
NET PRODUCTI		1.155	1.152	1.518	2.724	5.700	-.097	.983	.880	-.764	8.335	-2.528	-2.480
P.CAPUT GROS		-1.871	-1.308	-1.843	-.463	2.903	-3.348	-2.188	-2.427	-3.627	4.507	-5.758	-4.959
PERCAPUT NET		-1.831	-1.686	-1.578	-.285	2.716	-3.124	-2.108	-2.177	-4.139	5.183	-5.328	-5.628
OILCROPS													
GROSS PRODUC		-.740	-.948	.692	-1.308	-2.095	-.646	-.742	-.468	1.133	4.793	-10.077	4.143
NET PRODUCTI		-1.367	-1.425	.423	-2.147	-2.832	-1.716	-.615	-1.056	.267	5.612	-9.882	4.149
P.CAPUT GROS		-3.670	-3.732	-2.376	-4.204	-4.849	-3.681	-3.740	-3.482	-2.035	1.700	-12.825	1.065
PERCAPUT NET		-4.277	-4.193	-2.644	-5.020	-5.553	-4.697	-3.655	-4.055	-2.827	2.469	-12.726	1.015
LIVESTOCK PRODUCTS													
GROSS PRODUC		3.121	1.677	3.376	3.344	1.485	4.202	2.701	3.797	3.666	3.568	2.289	1.078
NET PRODUCTI		3.101	1.677	3.347	3.323	1.491	4.163	2.684	3.766	3.631	3.512	2.295	1.103
P.CAPUT GROS		.078	-1.181	.227	.308	-1.375	1.022	-.426	.654	.529	.414	-.824	-2.020
PERCAPUT NET		.059	-1.178	.196	.289	-1.366	.979	-.439	.622	.502	.377	-.835	-1.987
MEAT INDIGENOUS, TOTAL													
GROSS PRODUC		2.843	1.419	3.012	3.090	1.252	4.109	2.129	3.490	3.339	2.417	1.720	1.115
NET PRODUCTI		2.843	1.419	3.012	3.090	1.252	4.109	2.129	3.490	3.339	2.417	1.720	1.115
P.CAPUT GROS		-.192	-1.432	-.123	.062	-1.595	.938	-.978	.355	.219	-.702	-1.415	-1.920
PERCAPUT NET		-.192	-1.432	-.123	.062	-1.595	.938	-.978	.355	.219	-.702	-1.415	-1.920
VEGETABLES+MELONS,TOTAL													
GROSS PRODUC		3.480	3.463	3.716	3.539	4.048	3.029	3.783	3.402	3.139	5.522	2.782	3.351
NET PRODUCTI		3.477	3.457	3.716	3.536	4.044	3.025	3.785	3.401	3.139	5.522	2.790	3.351
P.CAPUT GROS		.426	.556	.557	.499	1.116	-.130	.645	.270		2.340	-.254	.127
PERCAPUT NET		.424	.547	.563	.494	1.130	-.117	.632	.270		2.340	-.381	.255
FRUIT EXCL MELONS,TOTAL													
GROSS PRODUC		1.300	2.385	.780	1.366	2.469	1.083	.536	.699	.077	-.048	.096	2.555
NET PRODUCTI		1.304	2.386	.792	1.365	2.477	1.100	.527	.705	.056			2.564
P.CAPUT GROS		-1.688	-.689	-2.290	-1.613	-.425	-2.012	-2.499	-2.350	-2.973	-3.064	-2.900	-.551
PERCAPUT NET		-1.681	-.491	-2.276	-1.606	-.397	-1.977	-2.510	-2.340	-2.963	-2.959	-3.037	-.551

Source: ESS Computer Printout for Food and Agricultural Products, FAO, Rome

APPENDIX II

NORTH WESTERN AFRICA

COMMODITY		69/84	69/76	77/84	71/80	71/75	76/80	80/84	74/84	80/81	81/82	82/83	83/84
POPULATION													
TOTAL	1000	2.898	2.661	3.133	2.825	2.644	3.026	3.189	3.050	3.144	3.187	3.206	3.213
FOOD													
GROSS PRODUC		2.047	3.080	2.549	1.859	1.518	3.308	1.132	1.742	-8.943	11.348	-3.467	4.252
NET PRODUCTI		1.783	2.747	2.585	1.511	1.282	3.257	1.409	1.573	-10.809	11.508	-1.920	5.133
P.CAPUT GROS		-.827	.408	-.565	-.940	-1.097	.273	-1.953	-1.269	-11.704	7.893	-6.455	1.001
PERCAPUT NET		-1.083	.082	-.531	-1.278	-1.329	.224	-1.725	-1.433	-13.534	8.065	-4.965	1.862
NON FOOD													
GROSS PRODUC		2.338	3.656	4.966	1.212	3.204	.073	4.776	2.662	3.566	6.227	3.818	5.276
NET PRODUCTI		2.321	3.284	4.994	1.198	2.072	.007	4.746	2.829	3.560	6.153	3.833	5.201
P.CAPUT GROS		-.534	.975	1.834	-1.591	.516	-2.858	1.551	-.354	.623	3.107	.600	1.801
PERCAPUT NET		-.561	.627	1.786	-1.566	-.532	-2.979	1.541	-.219	.624	2.501	.615	2.425
AGRICULTURE													
GROSS PRODUC		2.051	3.089	2.583	1.853	1.540	3.261	1.184	1.756	-8.776	11.272	-3.362	4.265
NET PRODUCTI		1.792	2.755	2.625	1.505	1.291	3.202	1.464	1.593	-10.587	11.421	-1.829	5.134
P.CAPUT GROS		-.823	.415	-.531	-.950	-1.077	.227	-1.943	-1.255	-11.543	7.830	-6.368	1.023
PERCAPUT NET		-1.075	.091	-.493	-1.283	-1.318	.172	-1.676	-1.413	-13.309	7.969	-4.883	1.859
CROPS													
GROSS PRODUC		.978	2.570	2.069	.569	.649	2.426	.331	.413	-17.039	20.471	-7.529	4.225
NET PRODUCTI		.387	2.404	2.075	-.167	.113	2.289	.721	-.055	-21.688	23.146	-5.730	5.823
P.CAPUT GROS		-1.867	.300	-1.033	-2.194	-1.943	-.579	-2.772	-2.559	-19.579	16.762	-10.408	.978
PERCAPUT NET		-2.440	-.249	-1.027	-2.910	-2.465	-.716	-2.395	-3.015	-24.065	19.327	-8.467	2.531
CEREALS													
GROSS PRODUC		-1.095	2.308	.825	-1.169	-2.635	.847	-4.106	-1.883	-33.130	44.131	-23.328	4.381
NET PRODUCTI		-3.571	1.180	-.059	-3.435	-4.389	.395	-5.056	-4.521	-54.003	82.943	-28.226	11.475
P.CAPUT GROS		-3.880	-.345	-2.240	-3.882	-5.144	-2.117	-7.066	-4.786	-35.152	39.664	-25.713	1.154
PERCAPUT NET		-6.284	-1.445	-3.089	-6.086	-6.856	-2.542	-7.990	-7.342	-55.384	77.174	-30.439	8.026
ROOTS AND TUBERS													
GROSS PRODUC		6.899	3.974	6.828	8.364	6.727	15.852	5.965	7.721	-16.562	40.249	-10.595	14.037
NET PRODUCTI		6.978	4.173	7.164	8.284	7.215	16.937	6.637	7.776	-19.770	47.010	-11.936	16.678
P.CAPUT GROS		3.889	1.299	3.580	5.385	3.975	12.403	2.705	4.526	-19.148	36.127	-13.359	10.345
PERCAPUT NET		3.968	1.451	3.917	5.311	4.407	13.558	3.341	4.605	-22.329	42.532	-14.611	13.012
SUGAR CROPS													
GROSS PRODUC		6.543	10.743	5.690	6.009	4.303	3.674	5.455	4.544	3.861	6.103	4.605	7.391
NET PRODUCTI		6.788	10.795	5.480	6.559	4.357	3.888	5.776	4.731	2.967	8.221	3.520	8.450
P.CAPUT GROS		3.542	7.825	2.474	3.088	1.491	.665	2.230	1.484		3.277	1.587	3.905
PERCAPUT NET		3.738	7.836	2.208	3.604	1.779	.924	2.343	1.586		4.390		5.271
PULSES													
GROSS PRODUC		-2.184	7.679	3.441	-3.975	11.230	-6.446	13.641	-5.601	-40.529	68.852	21.970	7.826
NET PRODUCTI		-3.375	4.871	8.809	-6.943	8.049	-5.591	22.699	-4.899	-50.453	111.314	40.217	10.049
P.CAPUT GROS		-4.939	4.877	.288	-6.401	8.371	-9.176	10.135	-8.396	-42.546	63.856	18.082	4.794
PERCAPUT NET		-6.082	2.136	5.496	-9.493	5.298	-8.434	19.019	-7.696	-51.672	105.188	35.300	6.834
OILCROPS													
GROSS PRODUC		.490	5.437	.596	-1.006	.790	7.575	-2.009	-1.331	-41.134	35.238	7.576	-12.533
NET PRODUCTI		-1.856	4.469	-.807	-3.450	-.214	5.918	-1.662	-3.964	-55.377	56.293	16.032	-15.615
P.CAPUT GROS		-2.337	2.710	-2.449	-3.735	-1.810	4.432	-5.036	-4.246	-42.829	31.029	4.073	-15.169
PERCAPUT NET		-4.616	1.766	-3.822	-6.098	-2.770	2.861	-4.770	-6.805	-56.678	51.238	12.163	-18.175
LIVESTOCK PRODUCTS													
GROSS PRODUC		3.791	3.324	3.322	4.074	3.302	4.814	2.476	3.897	3.984	-.061	2.828	4.322
NET PRODUCTI		3.747	3.342	3.282	4.013	3.341	4.672	2.475	3.827	3.940	-.146	2.907	4.375
P.CAPUT GROS		.867	.646	.183	1.215	.641	1.733	-.650	.822	.816	-3.147	-.357	1.065
PERCAPUT NET		.825	.664	.146	1.155	.678	1.597	-.692	.754	.774	-3.218	-.293	1.109
MEAT INDIGENOUS, TOTAL													
GROSS PRODUC		3.381	2.862	3.348	3.254	2.562	4.530	2.496	3.644	4.727	-.580	2.852	5.091
NET PRODUCTI		3.381	2.862	3.348	3.254	2.562	4.530	2.496	3.644	4.727	-.580	2.852	5.091
P.CAPUT GROS		.470	.195	.209	.417	-.078	1.462	-.674	.577	1.534	-4.027	-.374	1.841
PERCAPUT NET		.470	.195	.209	.417	-.078	1.462	-.674	.577	1.534	-4.027	-.374	1.841
VEGETABLES+MELONS,TOTAL													
GROSS PRODUC		4.719	5.977	4.319	4.941	8.223	3.257	4.341	3.883	5.137	7.616	.806	4.108
NET PRODUCTI		4.708	5.946	4.317	4.929	8.204	3.240	4.352	3.682	5.164	7.617	.806	4.131
P.CAPUT GROS		1.772	3.236	1.149	2.059	5.441	.215	1.126	.810	1.961	4.321	-2.307	.816
PERCAPUT NET		1.760	3.198	1.151	2.045	5.414	.216	1.120	.809	1.961	4.263	-2.327	.902
FRUIT EXCL MELONS,TOTAL													
GROSS PRODUC		.375	.519	.304	.084	-.231	2.330	.093	.279	-1.019	-3.408	1.719	4.219
NET PRODUCTI		.382	.490	.357	.066	-.256	2.430	.053	.309	-.949	-3.243	1.341	4.255
P.CAPUT GROS		-2.452	-2.088	-2.744	-2.666	-2.796	-.668	-3.007	-2.691	-4.011	-6.442	-1.439	.594
PERCAPUT NET		-2.446	-2.116	-2.694	-2.685	-2.822	-.585	-3.034	-2.662	-3.948	-6.241	-1.791	1.006

Source: ESS Computer Printout for Food and Agricultural Products, FAO, Rome

DATE 11/12/

WESTERN AFRICA

PAGE

COMMODITY		69/84	69/76	77/84	71/80	71/75	76/80	80/84	74/84	80/81	81/82	82/83	83/84
POPULATION													
TOTAL	1000	3.141	3.031	3.185	3.148	3.031	3.245	3.148	3.195	3.168	3.140	3.135	3.151
FOOD													
GROSS PRODUC		1.976	.973	2.242	2.381	1.731	3.131	.818	2.271	3.444	3.313	-6.938	6.803
NET PRODUCTI		1.964	.995	2.213	2.362	1.711	3.073	.802	2.236	3.391	3.560	-7.417	7.222
P.CAPUT GROS		-1.129	-1.596	-.912	-.742	-1.261	-.108	-2.259	-.895	.257	.184	-9.783	3.54
PERCAPUT NET		-1.141	-1.978	-.941	-.762	-1.283	-.165	-2.274	-.929	.226	.400	-10.228	3.53
NON FOOD													
GROSS PRODUC		.051	2.233	-2.330	.562	1.738	-2.912	-5.623	-.909	14.215	-13.869	2.448	-20.90
NET PRODUCTI		.051	2.233	-2.330	.562	1.738	-2.912	-5.623	-.909	14.215	-13.869	2.448	-20.90
P.CAPUT GROS		-2.985	-.748	-5.329	-2.497	-1.208	-5.926	-8.501	-3.974	10.678	-16.534	-.656	-23.25
PERCAPUT NET		-2.985	-.748	-5.329	-2.497	-1.208	-5.926	-8.501	-3.974	10.678	-16.534	-.656	-23.25
AGRICULTURE													
GROSS PRODUC		1.925	1.008	2.124	2.329	1.733	2.953	.664	2.189	3.713	2.834	-6.716	6.07
NET PRODUCTI		1.908	1.031	2.086	2.305	1.713	2.880	.639	2.148	3.697	3.029	-7.168	6.43
P.CAPUT GROS		-1.179	-1.964	-1.028	-.794	-1.261	-.285	-2.408	-.976	.536	-.297	-9.556	2.83
PERCAPUT NET		-1.195	-1.941	-1.064	-.816	-1.280	-.352	-2.433	-1.014	.517	-.113	-9.987	3.16
CROPS													
GROSS PRODUC		1.332	1.052	1.283	1.748	1.993	1.971	-.072	1.247	3.074	2.030	-9.340	8.66
NET PRODUCTI		1.274	1.086	1.181	1.682	1.985	1.817	-.154	1.136	3.000	2.262	-10.103	9.29
P.CAPUT GROS		-1.754	-1.921	-1.843	-1.356	-1.009	-1.235	-3.121	-1.888	-.058	-1.075	-12.097	5.34
PERCAPUT NET		-1.809	-1.687	-1.941	-1.420	-1.017	-1.386	-3.200	-1.595	-.153	-.853	-12.839	5.96
CEREALS													
GROSS PRODUC		1.331	1.013	-.036	2.562	2.608	3.254	-2.940	.747	4.156	-1.807	-16.816	11.98
NET PRODUCTI		1.063	.903	-.558	2.404	2.579	2.940	-3.529	.328	4.269	-2.432	-18.633	13.29
P.CAPUT GROS		-1.754	-1.957	-3.119	-.566	-.411	.010	-5.901	-2.371	.967	-4.778	-19.338	8.55
PERCAPUT NET		-2.014	-2.065	-3.626	-.718	-.432	-.286	-6.475	-2.779	1.037	-5.399	-21.081	9.78
ROOTS AND TUBERS													
GROSS PRODUC		1.387	1.606	1.337	1.530	2.333	1.613	.696	1.185	1.134	5.383	-10.822	12.36
NET PRODUCTI		1.429	1.842	1.322	1.523	2.472	1.549	.680	1.137	.883	6.371	-12.391	13.98
P.CAPUT GROS		-1.701	-1.383	-1.790	-1.568	-.679	-1.578	-2.380	-1.948	-1.977	2.162	-13.532	8.92
PERCAPUT NET		-1.660	-1.153	-1.806	-1.575	-.542	-1.647	-2.388	-1.995	-2.214	3.132	-15.041	10.49
SUGAR CROPS													
GROSS PRODUC		17.943	13.866	15.715	21.653	16.290	20.941	5.955	18.901	9.293	18.282	10.928	-18.55
NET PRODUCTI		17.649	13.632	15.482	21.317	16.484	20.972	5.400	18.570	9.317	17.892	10.978	-20.48
P.CAPUT GROS		14.441	10.701	12.182	18.141	13.354	17.121	2.786	15.263	5.209	14.850	7.761	-20.80
PERCAPUT NET		14.162	10.198	11.927	17.926	13.260	17.316	2.085	15.051	5.455	14.584	7.272	-22.88
PULSES													
GROSS PRODUC		1.747	.295	1.124	5.907	11.522	1.118	-1.074	1.455	.555	3.458	-9.117	3.34
NET PRODUCTI		1.895	.225	1.103	6.726	12.923	1.124	-1.341	1.538	-.150	4.305	-10.543	3.90
P.CAPUT GROS		-1.350	-2.655	-1.979	2.665	8.231	-2.018	-4.113	-1.680	-2.572	.295	-11.997	.33
PERCAPUT NET		-1.209	-2.711	-2.034	3.482	9.614	-2.052	-4.432	-1.618	-3.284	1.012	-13.422	.78
OILCROPS													
GROSS PRODUC		-.898	-2.767	1.479	-1.268	-3.501	-.643	-.218	.138	7.610	5.535	-15.828	9.790
NET PRODUCTI		-1.271	-3.200	1.377	-1.805	-4.155	-1.545	.099	-.151	7.933	6.254	-15.641	9.718
P.CAPUT GROS		-3.915	-5.623	-1.650	-4.280	-6.342	-3.760	-3.258	-2.962	4.218	2.333	-18.357	6.469
PERCAPUT NET		-4.279	-6.044	-1.757	-4.798	-6.975	-4.640	-2.969	-3.247	4.530	3.069	-18.294	6.472
LIVESTOCK PRODUCTS													
GROSS PRODUC		4.222	.798	5.117	4.731	.554	6.870	3.129	5.846	6.011	5.589	1.983	-1.522
NET PRODUCTI		4.212	.782	5.101	4.730	.545	6.875	3.109	5.838	5.974	5.502	1.991	-1.473
P.CAPUT GROS		1.048	-2.167	1.873	1.536	-2.407	3.509	-.020	2.569	2.732	2.369	-1.119	-4.541
PERCAPUT NET		1.037	-2.163	1.855	1.533	-2.411	3.513	-.037	2.558	2.650	2.308	-1.112	-4.482
MEAT INDIGENOUS, TOTAL													
GROSS PRODUC		3.913	.612	4.507	4.619	.490	6.748	2.305	5.407	5.068	3.599	1.780	-1.488
NET PRODUCTI		3.913	.612	4.507	4.619	.490	6.748	2.305	5.407	5.068	3.599	1.780	-1.488
P.CAPUT GROS		.749	-2.347	1.282	1.427	-2.469	3.392	-.816	2.143	1.820	.441	-1.299	-4.494
PERCAPUT NET		.749	-2.347	1.282	1.427	-2.469	3.392	-.816	2.143	1.820	.441	-1.299	-4.494
VEGETABLES+MELONS, TOTAL													
GROSS PRODUC		3.876	2.663	4.889	3.883	3.013	4.779	4.869	4.385	2.755	7.067	4.437	4.391
NET PRODUCTI		3.876	2.663	4.889	3.883	3.013	4.779	4.869	4.385	2.755	7.067	4.437	4.391
P.CAPUT GROS		.714	-.368	1.654	.721	-.011	1.494	1.666	1.158	-.429	3.834	1.237	1.213
PERCAPUT NET		.714	-.368	1.654	.721	-.011	1.494	1.666	1.158	-.429	3.834	1.237	1.213
FRUIT EXCL MELONS, TOTAL													
GROSS PRODUC		1.209	3.660	.412	1.432	4.574	-.606	.613	-.018	-.765	1.306	-2.487	5.818
NET PRODUCTI		1.209	3.660	.412	1.432	4.574	-.606	.613	-.018	-.765	1.306	-2.487	5.818
P.CAPUT GROS		-1.874	.609	-2.688	-1.666	1.509	-3.716	-2.448	-3.117	-3.707	-1.925	-5.458	2.759
PERCAPUT NET		-1.874	.609	-2.688	-1.666	1.509	-3.716	-2.448	-3.117	-3.707	-1.925	-5.458	2.759

Source: ESS Computer Printout for Food and Agricultural Products, FAO, Rome

COMMODITY		69/84	69/76	77/84	71/80	71/75	76/80	80/84	74/84	8C/E1	81/82	82/83	83/84
POPULATION													
TOTAL	1000	2.602	2.499	2.747	2.668	2.534	2.781	2.724	2.745	2.735	2.720	2.717	2.730
FOOD													
GROSS PRODUC		1.821	2.434	1.884	1.697	2.965	.758	1.833	1.532	2.872	2.874	.589	1.127
NET PRODUCTI		1.803	2.386	1.905	1.664	2.903	.775	1.840	1.537	2.843	2.884	.616	1.136
P.CAPUT GROS		-.820	-.063	-.839	-.947	.419	-1.969	-.866	-1.180	.130	.151	-2.072	-1.554
PERCAPUT NET		-.837	-.110	-.820	-.978	.359	-1.952	-.859	-1.175	.097	.162	-2.039	-1.553
NON FOOD													
GROSS PRODUC		-3.333	-2.563	-1.037	-5.036	-1.340	-1.045	-.718	-3.378	-9.706	17.509	-19.152	15.365
NET PRODUCTI		-3.333	-2.563	-1.037	-5.036	-1.340	-1.048	-.716	-3.378	-9.694	17.509	-19.152	15.365
P.CAPUT GROS		-5.839	-4.950	-3.683	-7.504	-3.807	-3.710	-3.329	-5.952	-12.135	14.323	-21.257	12.498
PERCAPUT NET		-5.844	-4.950	-3.703	-7.504	-3.807	-3.710	-3.377	-5.963	-12.135	14.323	-21.257	12.222
AGRICULTURE													
GROSS PRODUC		1.575	2.167	1.778	1.357	2.716	.685	1.744	1.316	2.402	3.364	-.163	1.567
NET PRODUCTI		1.551	2.114	1.793	1.318	2.652	.701	1.745	1.315	2.354	3.375	-.154	1.565
P.CAPUT GROS		-1.059	-.324	-.945	-1.275	.178	-2.036	-.956	-1.390	-.340	.627	-2.798	-1.136
PERCAPUT NET		-1.082	-.375	-.928	-1.314	.116	-2.022	-.952	-1.391	-.373	.649	-2.799	-1.114
CROPS													
GROSS PRODUC		1.654	2.343	1.909	1.378	2.956	.598	1.957	1.358	2.718	3.646	-.054	1.733
NET PRODUCTI		1.629	2.285	1.932	1.333	2.883	.613	1.968	1.360	2.660	3.686	-.036	1.760
P.CAPUT GROS		-.982	-.151	-.814	-1.257	.411	-2.125	-.745	-1.349	-.022	.902	-2.694	-.564
PERCAPUT NET		-1.007	-.209	-.794	-1.301	.338	-2.109	-.736	-1.348	-.066	.936	-2.684	-.542
CEREALS													
GROSS PRODUC		1.002	2.237	.631	1.854	4.818	.833	1.751	.089	-17.833	23.387	-2.240	.157
NET PRODUCTI		.901	2.122	.633	1.815	4.744	1.234	1.663	.003	-21.123	26.927	-2.419	-.119
P.CAPUT GROS		-1.620	-.255	-2.069	-.798	2.200	-1.894	-.963	-2.589	-20.114	20.218	-4.870	-2.480
PERCAPUT NET		-1.716	-.365	-2.058	-.826	2.159	-1.503	-1.043	-2.670	-23.341	23.664	-4.997	-2.795
ROOTS AND TUBERS													
GROSS PRODUC		2.562	2.969	3.116	2.204	3.765	1.221	3.097	2.459	6.581	2.862	1.824	1.948
NET PRODUCTI		2.554	2.897	3.155	2.185	3.699	1.242	3.137	2.488	6.648	2.884	1.880	1.969
P.CAPUT GROS		-.098	.460	.359	-.451	1.202	-1.517	.364	-.278	3.748	.142	-.874	-.759
PERCAPUT NET		-.106	.390	.395	-.469	1.138	-1.496	.397	-.251	3.796	.163	-.822	-.747
SUGAR CROPS													
GROSS PRODUC		5.169	3.349	6.039	5.886	6.279	4.222	1.598	5.707	22.753	-16.574	5.500	6.762
NET PRODUCTI		4.910	3.122	5.847	5.569	5.986	3.504	1.415	5.458	24.815	-18.112	5.571	6.930
P.CAPUT GROS		2.429	.817	3.260	3.102	3.568	1.410	-1.119	2.893	19.085	-19.081	2.829	4.583
PERCAPUT NET		2.189	.660	3.037	2.809	3.436	.568	-1.116	2.628	21.001	-19.837	3.094	3.999
PULSES													
GROSS PRODUC		1.462	3.244	.104	1.804	3.513	-1.519	1.124	.411	1.589	2.762	.800	-1.262
NET PRODUCTI		1.400	3.307	-.046	1.745	3.543	-1.849	1.132	.287	1.625	2.829	.836	-1.407
P.CAPUT GROS		-1.185	.704	-2.613	-.844	.891	-4.241	-1.670	-2.283	-.774		-2.351	-3.993
PERCAPUT NET		-1.214	.769	-2.765	-.855	.906	-4.526	-1.594	-2.371	-.861		-1.749	-4.421
OILCROPS													
GROSS PRODUC		-.721	.217	-.935	-.780	.659	-2.770	-1.370	-1.194	2.107	1.850	-4.609	-4.546
NET PRODUCTI		-1.068	-.093	-1.144	-1.226	.266	-3.179	-1.674	-1.513	2.319	1.471	-5.121	-4.911
P.CAPUT GROS		-3.300	-2.237	-3.586	-3.364	-1.832	-5.394	-4.008	-3.834	-.600	-.919	-7.099	-7.150
PERCAPUT NET		-3.633	-2.527	-3.795	-3.785	-2.221	-5.791	-4.297	-4.143	-.523	-1.205	-7.527	-7.578
LIVESTOCK PRODUCTS													
GROSS PRODUC		.984	.876	.765	1.211	.934	1.354	.093	.988	.019	1.164	-1.022	.251
NET PRODUCTI		.982	.886	.753	1.214	.975	1.344	.083	.975	.084	1.136	-1.059	.233
P.CAPUT GROS		-1.635	-1.582	-1.925	-1.421	-1.557	-1.381	-2.561	-1.709	-2.666	-1.490	-3.693	-2.344
PERCAPUT NET		-1.638	-1.573	-1.942	-1.414	-1.521	-1.396	-2.576	-1.723	-2.637	-1.502	-3.673	-2.461
MEAT INDIGENOUS, TOTAL													
GROSS PRODUC		.895	.972	.602	1.136	1.187	1.045	-.025	.793	.274	1.130	-1.481	.151
NET PRODUCTI		.895	.972	.602	1.136	1.187	1.045	-.025	.793	.274	1.130	-1.481	.151
P.CAPUT GROS		-1.721	-1.494	-2.088	-1.485	-1.315	-1.685	-2.682	-1.897	-2.434	-1.519	-4.076	-2.559
PERCAPUT NET		-1.721	-1.494	-2.088	-1.485	-1.315	-1.685	-2.682	-1.897	-2.434	-1.519	-4.076	-2.559
VEGETABLES+MELONS,TOTAL													
GROSS PRODUC		2.561	4.027	2.090	2.610	4.550	-.059	2.265	1.813	3.389	2.789	1.506	1.510
NET PRODUCTI		2.561	4.027	2.090	2.610	4.550	-.059	2.265	1.813	3.389	2.789	1.506	1.510
P.CAPUT GROS		-.099	1.488	-.638	-.061	1.953	-2.769	-.442	-.905	.664	.096	-1.234	-1.152
PERCAPUT NET		-.099	1.488	-.638	-.061	1.953	-2.769	-.442	-.905	.664	.096	-1.234	-1.152
FRUIT EXCL MELONS,TOTAL													
GROSS PRODUC		1.245	2.736	.409	1.155	2.349	.353	.485	.464	.959	.436	.241	.453
NET PRODUCTI		1.244	2.735	.408	1.154	2.349	.351	.484	.463	.969	.427	.241	.453
P.CAPUT GROS		-1.381	.229	-2.279	-1.473	-.186	-2.362	-2.181	-2.221	-1.715	-2.236	-2.415	-2.212
PERCAPUT NET		-1.380	.232	-2.275	-1.474	-.176	-2.356	-2.187	-2.220	-1.727	-2.237	-2.416	-2.225

Source: ESS Computer Printout for Food and Agricultural Products, FAO, Rome

DATE 11/12/84

EASTERN AFRICA

PAGE 394

COMMODITY		65/84	69/76	77/84	71/80	71/75	76/80	80/84	74/84	80/81	81/82	82/83	83/84
POPULATION													
TOTAL	1000	3.144	2.988	3.265	3.117	2.983	3.247	3.273	3.235	3.261	3.265	3.274	3.254
FOOD													
GROSS PRODUC		1.947	2.229	1.316	2.174	1.859	1.276	.851	1.737	3.417	2.439	-.336	-2.207
NET PRODUCTI		1.926	2.191	1.315	2.142	1.813	1.195	.964	1.731	3.567	2.444	-.060	-2.214
P.CAPUT GROS		-1.160	-.736	-1.888	-.914	-1.092	-1.909	-2.346	-1.452	.150	-.801	-3.500	-5.322
PERCAPUT NET		-1.181	-.775	-1.889	-.946	-1.136	-1.984	-2.238	-1.458	.250	-.803	-3.226	-5.329
NON FOOD													
GROSS PRODUC		.958	.588	1.623	.645	.699	1.279	2.176	1.273	-2.536	.515	4.846	4.591
NET PRODUCTI		.959	.615	1.603	.648	.716	1.267	2.166	1.259	-2.575	.878	4.861	5.014
P.CAPUT GROS		-2.118	-2.332	-1.587	-2.397	-2.224	-1.902	-1.055	-1.898	-5.649	-2.249	1.499	1.705
PERCAPUT NET		-2.119	-2.303	-1.615	-2.393	-2.206	-1.923	-1.078	-1.917	-5.655	-2.367	1.621	1.595
AGRICULTURE													
GROSS PRODUC		1.818	2.012	1.356	1.974	1.708	1.278	1.018	1.677	2.655	2.257	.279	-1.314
NET PRODUCTI		1.794	1.973	1.354	1.939	1.664	1.205	1.123	1.667	2.747	2.253	.542	-1.270
P.CAPUT GROS		-1.286	-.948	-1.849	-1.105	-1.240	-1.908	-2.183	-1.509	-.579	-.981	-2.897	-4.464
PERCAPUT NET		-1.309	-.985	-1.849	-1.144	-1.278	-1.976	-2.083	-1.519	-.495	-.984	-2.642	-4.425
CROPS													
GROSS PRODUC		1.644	2.054	1.027	1.832	1.698	1.071	.055	1.376	3.298	1.458	-1.243	-3.017
NET PRODUCTI		1.603	2.005	1.017	1.774	1.641	.952	.210	1.349	3.473	1.409	-.920	-3.028
P.CAPUT GROS		-1.455	-.907	-2.169	-1.246	-1.245	-2.106	-3.060	-1.802	.043	-1.752	-4.380	-6.123
PERCAPUT NET		-1.494	-.955	-2.176	-1.304	-1.304	-2.225	-2.962	-1.827	.207	-1.812	-4.034	-6.126
CEREALS													
GROSS PRODUC		1.455	2.545	-.372	1.990	1.851	.171	-2.391	.673	5.216	2.942	-4.737	-13.286
NET PRODUCTI		1.260	2.355	-.601	1.761	1.576	-.332	-2.287	.475	6.135	2.881	-4.236	-14.177
P.CAPUT GROS		-1.636	-.428	-3.523	-1.092	-1.104	-2.982	-5.484	-2.482	1.849	-.272	-7.752	-16.074
PERCAPUT NET		-1.827	-.615	-3.745	-1.316	-1.361	-3.466	-5.385	-2.675	2.764	-.309	-7.331	-16.907
ROOTS AND TUBERS													
GROSS PRODUC		3.028	3.341	1.922	4.008	4.220	3.293	-.094	2.620	3.237	-1.232	-.287	-1.357
NET-PRODUCTI		3.076	3.409	1.929	4.080	4.344	3.413	-.160	2.649	3.200	-1.268	-.360	-1.486
P.CAPUT GROS		-.111	.338	-1.295	.863	1.195	.057	-3.259	-.589		-4.365	-3.510	-4.412
PERCAPUT NET		-.066	.408	-1.300	.932	1.310	.155	-3.323	-.568		-4.449	-3.441	-4.706
SUGAR CROPS													
GROSS PRODUC		1.587	.642	1.498	1.256	-1.335	.817	2.418	2.124	9.407	9.004	-8.189	2.878
NET PRODUCTI		1.631	.767	1.440	1.359	-1.164	.830	2.242	2.115	8.957	8.798	-7.968	2.341
P.CAPUT GROS		-1.513	-2.263	-1.709	-1.819	-4.192	-2.384	-.837	-1.085	5.949	5.615	-10.969	-.745
PERCAPUT NET		-1.471	-2.153	-1.766	-1.714	-4.032	-2.337	-1.012	-1.088	5.330	5.415	-10.956	-.778
PULSES													
GROSS PRODUC		1.339	.808	1.032	1.240	-1.365	.750	.400	1.828	4.864	6.044	-.207	-10.634
NET PRODUCTI		1.401	.832	1.094	1.303	-1.494	.835	.380	1.924	4.736	6.621	-.033	-11.570
P.CAPUT GROS		-1.757	-2.137	-2.146	-1.843	-4.237	-2.408	-2.759	-1.358	1.727	2.716	-3.305	-13.652
PERCAPUT NET		-1.692	-2.074	-2.126	-1.745	-4.337	-2.330	-2.878	-1.281	1.489	2.944	-3.208	-14.392
OILCROPS													
GROSS PRODUC		-.672	1.130	-.012	-1.913	-1.468	-3.100	-.565	-1.158	10.304	-6.825	-5.234	6.212
NET PRODUCTI		-1.237	.906	-.107	-2.820	-2.173	-4.675	-.212	-1.692	14.005	-8.357	-5.383	7.491
P.CAPUT GROS		-3.705	-1.832	-3.177	-4.880	-4.369	-6.134	-3.780	-4.250	6.853	-9.813	-8.368	2.743
PERCAPUT NET		-4.241	-2.028	-3.227	-5.768	-5.000	-7.671	-3.337	-4.753	10.631	-11.058	-8.637	4.138
LIVESTOCK PRODUCTS													
GROSS PRODUC		2.205	1.913	2.068	2.300	1.730	1.754	3.062	2.347	1.220	4.122	3.721	2.356
NET PRODUCTI		2.201	1.905	2.050	2.300	1.717	1.767	3.036	2.341	1.184	4.104	3.687	2.340
P.CAPUT GROS		-.910	-1.044	-1.157	-.793	-1.215	-1.439	-.205	-.860	-1.996	.815	.447	-.889
PERCAPUT NET		-.915	-1.050	-1.174	-.796	-1.224	-1.435	-.225	-.867	-1.975	.783	.404	-.900
MEAT INDIGENOUS, TOTAL													
GROSS PRODUC		2.071	1.651	1.691	2.306	1.575	1.877	2.413	2.197	.676	3.471	2.697	2.161
NET PRODUCTI		2.071	1.651	1.691	2.306	1.575	1.877	2.413	2.197	.676	3.471	2.697	2.161
P.CAPUT GROS		-1.041	-1.303	-1.526	-.790	-1.377	-1.326	-.832	-1.006	-2.509	.214	-.554	-1.115
PERCAPUT NET		-1.041	-1.303	-1.526	-.790	-1.377	-1.326	-.832	-1.006	-2.509	.214	-.554	-1.115
VEGETABLES+MELONS,TOTAL													
GROSS PRODUC		2.287	2.429	1.840	2.416	2.069	2.011	1.866	2.162	1.887	2.053	1.866	1.563
NET PRODUCTI		2.287	2.429	1.840	2.416	2.069	2.011	1.866	2.162	1.887	2.053	1.866	1.563
P.CAPUT GROS		-.830	-.539	-1.390	-.669	-.874	-1.199	-1.406	-1.039	-1.407	-1.142	-1.443	-1.747
PERCAPUT NET		-.830	-.539	-1.390	-.669	-.874	-1.199	-1.406	-1.039	-1.407	-1.142	-1.443	-1.747
FRUIT EXCL MELONS,TOTAL													
GROSS PRODUC		2.590	2.763	2.143	3.268	3.865	2.544	.913	2.266	.857	1.356	.745	.555
NET PRODUCTI		2.584	2.767	2.138	3.257	3.870	2.530	.918	2.257	.867	1.366	.746	.555
P.CAPUT GROS		-.535	-.213	-1.080	.141	.853	-.678	-2.289	-.936	-2.352	-1.806	-2.442	-2.720
PERCAPUT NET		-.541	-.214	-1.087	.130	.854	-.719	-2.255	-.946	-2.164	-2.006	-2.257	-2.721

Source: ESS Computer Printout for Food and Agricultural Products, FAO, Rome

APPENDIX II

SOUTHERN AFRICA DEVPING

COMMODITY		69/84	65/76	77/84	71/80	71/75	76/80	80/84	74/84	80/81	81/82	82/83	83/84
POPULATION													
TOTAL	1000	2.810	2.660	2.905	2.797	2.703	2.889	2.916	2.883	2.889	2.901	2.933	2.938
FOOD													
GROSS PRODUC		.907	2.195	1.336	-.099	.652	.598	.506	.504	5.360	.229	-3.916	2.596
NET PRODUCTI		.639	2.056	1.178	-.512	.331	.049	.646	.237	5.718	.380	-4.077	3.390
P.CAPUT GROS		-1.851	-.472	-1.526	-2.817	-1.995	-2.224	-2.343	-2.312	2.356	-2.600	-6.650	.050
PERCAPUT NET		-2.112	-.611	-1.677	-3.215	-2.311	-2.758	-2.205	-2.571	2.744	-2.440	-6.826	.456
NON FOOD													
GROSS PRODUC		3.748	3.507	1.116	5.708	6.777	5.808	-2.315	2.714	-3.652	-5.774	.623	
NET PRODUCTI		3.748	3.507	1.118	5.708	6.777	5.808	-2.315	2.714	-3.652	-5.774	.623	
P.CAPUT GROS		.914	.807	-1.731	2.822	3.955	2.840	-5.058	-.161	-6.332	-8.416	-2.193	-2.859
PERCAPUT NET		.914	.807	-1.731	2.822	3.955	2.840	-5.058	-.161	-6.332	-8.416	-2.193	-2.859
AGRICULTURE													
GROSS PRODUC		1.041	2.250	1.319	.171	.901	.675	.341	.614	4.798	-.113	-3.668	2.829
NET PRODUCTI		.793	2.119	1.170	-.210	.603	.371	.460	.367	5.104	.010	-3.817	3.189
P.CAPUT GROS		-1.720	-.419	-1.541	-2.555	-1.753	-1.956	-2.502	-2.205	1.844	-2.917	-6.423	-.098
PERCAPUT NET		-1.962	-.548	-1.686	-2.925	-2.047	-2.447	-2.387	-2.445	2.156	-2.818	-6.551	.239
CROPS													
GROSS PRODUC		3.034	3.989	1.919	3.137	3.543	2.198	.058	2.107	5.332	-2.061	-.657	-.788
NET PRODUCTI		2.452	3.467	1.617	2.262	2.621	.974	.370	1.621	6.213	-1.998	-.508	-.387
P.CAPUT GROS		.217	1.275	-.959	.331	.820	-.674	-2.778	-.755	2.381	-4.819	-3.481	-3.628
PERCAPUT NET		-.348	.768	-1.255	-.519	-.077	-1.861	-2.475	-1.229	3.201	-4.760	-3.343	-3.215
CEREALS													
GROSS PRODUC		-2.639	1.379	-9.745	-.839	-1.567	-2.456	-13.158	-6.553	-4.822	-29.979	-2.695	-7.726
NET PRODUCTI		-4.186	.656	-12.612	-2.081	-2.843	-3.843	-16.406	-8.842	-6.555	-37.439	-3.636	-6.677
P.CAPUT GROS		-5.303	-1.277	-12.294	-3.544	-4.172	-5.196	-15.606	-9.172	-7.469	-31.981	-5.353	-10.430
PERCAPUT NET		-6.802	-1.957	-15.075	-4.745	-5.386	-6.550	-18.761	-11.398	-9.176	-39.242	-6.161	-9.501
ROOTS AND TUBERS													
GROSS PRODUC		1.738	3.696	-.070	2.593	2.911	1.622	-1.128	.549	-5.516			
NET PRODUCTI		1.710	3.657	-.069	2.564	2.927	1.642	-1.142	.509	-5.583			
P.CAPUT GROS		-1.043	.971	-2.879	-.201	.172	-1.212	-3.946	-2.261	-8.178	-2.793	-2.862	-2.946
PERCAPUT NET		-1.065	.943	-2.871	-.231	.198	-1.229	-3.952	-2.293	-8.057	-2.821	-2.903	-3.002
SUGAR CROPS													
GROSS PRODUC		6.566	3.657	9.119	6.402	6.115	8.651	4.685	8.117	16.798	4.624		.585
NET PRODUCTI		6.669	3.812	9.288	6.499	6.513	8.693	4.814	8.205	17.390	4.479	.212	.586
P.CAPUT GROS		3.654	.948	6.037	3.509	3.307	5.597	1.717	5.091	13.517	1.645	-2.831	-2.282
PERCAPUT NET		3.754	1.100	6.205	3.600	3.705	5.638	1.851	5.173	14.150	1.508	-2.627	-2.289
PULSES													
GROSS PRODUC		2.705	10.084	1.281	2.147	10.594	-13.733	6.551	-.803	36.701	5.839	-5.224	
NET PRODUCTI		3.034	10.914	1.167	2.644	11.386	-14.641	7.115	-.781	40.312	6.239	-5.559	
P.CAPUT GROS		-.105	7.196	-1.573	-.620	7.740	-16.125	3.506	-3.587	32.979	2.712	-7.921	-2.867
PERCAPUT NET		.216	8.040	-1.703	-.155	8.462	-17.062	4.055	-3.569	36.172	3.317	-8.439	-2.633
OILCROPS													
GROSS PRODUC		6.831	8.232	2.837	7.477	6.890	7.997	-.020	4.975	1.011	-.735		
P.CAPUT GROS		3.927	5.542	-.013	4.530	4.377	4.738	-2.629	2.010	-1.410	-2.852	-2.944	-3.033
LIVESTOCK PRODUCTS													
GROSS PRODUC		-.065	1.349	.942	-1.425	-.415	.041	.524	-.279	4.441	1.206	-5.655	5.341
NET PRODUCTI		-.045	1.470	.928	-1.423	-.328	.017	.510	-.303	4.448	1.208	-5.725	5.376
P.CAPUT GROS		-2.795	-1.297	-1.908	-4.107	-3.036	-2.761	-2.325	-3.073	1.490	-1.626	-8.361	2.342
PERCAPUT NET		-2.776	-1.179	-1.920	-4.106	-2.952	-2.793	-2.337	-3.096	1.530	-1.640	-8.412	2.347
MEAT INDIGENOUS, TOTAL													
GROSS PRODUC		-.338	1.751	.968	-2.138	-.446	-.452	.517	-.710	5.341	1.842	-7.421	6.399
NET PRODUCTI		-.338	1.751	.968	-2.138	-.446	-.452	.517	-.710	5.341	1.842	-7.421	6.399
P.CAPUT GROS		-3.061	-.905	-1.882	-4.800	-3.066	-3.243	-2.329	-3.491	2.380	-1.043	-10.044	3.374
PERCAPUT NET		-3.061	-.905	-1.882	-4.800	-3.066	-3.243	-2.329	-3.491	2.380	-1.043	-10.044	3.374
VEGETABLES+MELONS,TOTAL													
GROSS PRODUC		1.945	2.700	.690	2.460	2.596	1.958	1.165	1.355	-5.163	7.494	.169	
NET PRODUCTI		1.945	2.700	.690	2.460	2.596	1.958	1.165	1.355	-5.163	7.494	.169	
P.CAPUT GROS		-.843	.030	-2.160	-.324	-.073	-.883	-1.714	-1.493	-7.877	4.700	-2.856	-2.940
PERCAPUT NET		-.843	.030	-2.160	-.324	-.073	-.883	-1.714	-1.493	-7.877	4.700	-2.856	-2.940
FRUIT EXCL MELONS,TOTAL													
GROSS PRODUC		2.289	2.997	2.915	1.358	1.694	1.265	3.638	2.362	3.733	9.307	.569	
NET PRODUCTI		2.289	2.997	2.915	1.358	1.694	1.265	3.638	2.362	3.733	9.307	.569	
P.CAPUT GROS		-.510	.298	.069	-1.403	-1.021	-1.587	.718	-.505	.883	6.129	-2.274	-2.739
PERCAPUT NET		-.510	.298	.009	-1.403	-1.021	-1.587	.718	-.505	.883	6.129	-2.274	-2.739

Source: ESS Computer Printout for Food and Agricultural Products, FAO, Rome

AFRICAN EXPORTS OF AGRICULTURAL
FISH AND FORESTRY PRODUCTS
1978 - 1983

(US$ '000)

COUNTRY	1978	1979	1980	1981	1982	1983
Algeria	148 600	113 450	120 620	132 590	76 030	41 030
Angola	276 610	244 180	189 940	132 000	130 730	91 750
Benin	27 090	35 440	48 000	35 120	24 030	32 930
Botswana	41 170	94 820	44 710	82 780	82 590	96 610
Burundi	67 730	103 290	63 570	69 860	87 820	75 870
Cameroon	714 730	776 650	852 080	577 050	498 080	503 960
Cape Verde	810	1 250	3 340	2 390	3 650	3 770
Central African Republic	56 810	69 780	84 330	70 930	74 340	82 630
Chad	90 940	107 610	104 880	106 20	84 180	102 550
Comoros	6 290	14 180	7 280	14 390	18 420	15 250
Congo	56 340	62 170	98 390	67 320	57 750	57 070
Djibouti	10	180	130	-	-	-
Egypt	664 210	610 860	681 620	745 560	678 840	685 690
Eq. Guinea	38 900	34 740	31 730	30 310	24 770	38 530
Ethiopia	293 800	397 610	391 290	345 140	369 370	380 540
Gabon	122 100	139 610	192 660	150 500	160 700	161 630
Gambia	31 590	34 180	32 750	21 940	17 590	27 550
Ghana	806 690	795 220	841 930	463 750	437 930	313 370
Guinea	23 210	34 660	33 350	27 980	30 540	36 530
Guin Bissau	9 990	10 230	9 810	13 290	12 520	12 010
Ivory Coast	2 122 170	2 182 010	2 446 290	2 040 560	1 792 990	1 818 830
Kenya	684 550	710 390	707 670	631 450	598 050	629 600
Lesotho	12 800	14 590	15 550	14 580	15 200	13 890
Liberia	171 970	209 740	249 140	177 820	126 810	131 150
Libya	310	220	140	140	140	140
Madagascar	343 910	341 070	353 550	276 040	274 510	303 740
Malawi	170 150	208 450	256 070	255 400	234 200	229 460
Mali	112 200	160 140	217 700	194 410	159 550	178 180
Mauritania	57 700	49 760	81 760	150 190	171 840	163 270
Mauritius	236 610	274 980	307 280	206 100	247 310	252 150
Morocco	534 910	642 620	756 150	651 040	559 130	594 130
Mozambique	89 730	154 010	136 190	142 840	125 310	102 430

Namibia	108 400	116 700	122 000	126 000	124 000	99 000
Niger	56 950	61 940	91 060	87 950	69 580	71 890
Nigeria	821 570	705 350	471 610	339 360	410 260	466 230
Reunion	102 840	124 220	115 610	93 630	89 500	79 850
Rwanda	65 820	109 990	64 580	72 280	74 630	97 640
St. Helena	-	-	-	50	50	-
Sao Tome Prn	19 190	30 250	18 520	11 830	12 110	6 920
Senegal	224 300	339 060	218 290	167 740	310 110	322 150
Seychelles	3 150	4 570	4 820	3 820	3 080	3 160
Sierra Leone	50 110	80 050	58 910	28 710	35 330	47 500
Somalia	105 950	112 630	125 280	152 680	220 890	226 880
(South Africa)	1 959 510	2 194 250	2 855 330	2 612 510	2 200 030	1 749 160
Sudan	477 720	570 690	553 170	472 740	444 660	610 710
Swaziland	144 970	186 570	280 320	269 110	216 950	223 840
Tanzania	400 740	411 370	410 220	448 530	334 940	334 960
Togo	97 530	71 100	77 040	66 790	56 080	45 960
Tunisia	188 290	236 660	167 290	238 140	198 940	144 090
Uganda	345 940	427 020	346 640	243 070	345 640	351 680
Upper Volta	39 070	66 190	79 590	63 020	47 620	66 670
Western Sahara	-	-	-	-	-	-
Zaire	245 710	214 230	252 030	197 430	189 400	189 460
Zambia	15 820	5 590	13 470	8 200	12 070	11 900
Zimbabwe	402 370	409 570	453 170	625 370	525 850	471 570
Total Africa:	13 890 520	15 106 070	16 138 810	14 158 630	13 096 600	12 788 440

Source: Computer Service Centre, Statistics Division, FAO, Rome

APPENDIX IV

AFRICAN IMPORTS OF AGRICULTURAL
FISH AND FORESTRY PRODUCTS
1978 - 1983

(US$ '000)

COUNTRY	YEARS 1978	1979	1980	1981	1982	1983
Algeria	1 628 210	1 803 000	2 490 200	2 776 230	2 841 620	2 502 220
Angola	207 210	212 880	284 860	269 340	262 610	241 110
Benin	85 610	96 940	102 650	120 710	125 390	117 560
Botswana	56 940	77 370	94 740	98 350	112 720	98 280
Burundi	19 500	27 450	30 370	33 030	40 740	26 310
Cameroon	118 360	146 370	149 690	142 070	144 240	162 460
Cape Verde	24 680	24 910	30 440	26 020	25 990	21 610
Central African Republic	18 230	19 970	24 620	33 560	27 830	29 260
Chad	13 820	12 630	7 120	11 690	20 510	16 440
Comoros	8 940	10 590	11 710	11 260	12 600	10 420
Congo	58 250	78 070	84 830	70 160	94 710	83 920
Djibouti	42 370	47 440	61 060	48 190	60 970	52 170
Egypt	2 419 790	1 919 990	2 804 890	4 277 920	3 777 710	4 094 190
Eq. Guinea	3 000	3 860	10 240	16 290	12 300	9 590
Ethiopia	70 520	85 940	113 220	102 380	101 620	116 670
Gabon	109 650	104 740	121 510	136 180	137 790	142 170
Gambia	29 640	31 900	41 450	43 800	49 110	37 330
Ghana	160 440	143 690	150 620	194 040	153 580	163 590
Guinea	38 670	46 170	79 170	67 220	44 310	57 660
Guin Bissau	24 430	15 760	12 580	23 440	13 080	13 150
Ivory Coast	374 670	441 950	580 380	598 960	520 100	548 080
Kenya	165 210	139 880	242 840	167 100	166 060	164 780
Lesotho	76 870	93 020	112 430	120 930	112 290	79 650
Liberia	92 760	102 590	117 280	121 640	111 480	121 300
Libya	856 310	974 990	1 400 290	1 686 290	1 392 210	1 460 290
Madagascar	82 430	125 150	86 490	124 270	145 780	95 760
Malawi	27 020	36 700	54 550	52 240	38 450	36 500
Mali	49 110	46 560	71 120	68 270	81 850	81 020
Mauritania	72 380	76 290	89 700	97 770	95 090	95 920
Mauritius	147 310	158 420	187 480	175 740	149 820	138 360
Morocco	760 270	931 340	1 085 310	1 228 850	957 040	886 400
Mozambique	75 630	92 360	129 150	109 450	105 480	103 850

Namibia	18 900F	20 000F	21 900F	24 400F	23 350F	23 000F
Niger	54 800	63 110	82 740	122 070	80 810	50 070
Nigeria	2 106 600	2 194 770	2 849 860	3 147 680	2 886 050	2 443 290
Reunion	177 570	219 560	247 530	229 500	209 660	208 950
Rwanda	31 920	36 360	45 340	42 560	45 400	42 420
St.Helena	970	1 370	1 410	2 220	1 210	1 320
Sao Tome Prn	5 430	4 590	6 860	5 200	5 550	4 920
Senegal	215 640	265 150	293 480	338 310	289 470	312 120
Seychelles	14 140	16 820	20 650	18 940	21 140	17 220
Sierra Leone	64 080	89 720	96 630	92 110	89 660	83 810
Somalia	87 350	89 890	152 970	208 160	177 930	142 070
(South Africa)	634 040	746 240	1 065 430	1 241 960	966 930	1 308 690
Sudan	185 850	190 140	403 730	349 940	269 810	229 900
Swaziland	25 590	24 640	33 760	34 080	48 830	51 230
Tanzania	107 540	77 360	182 890	145 720	161 330	117 570
Togo	45 710	71 260	92 860	113 980	124 610	126 130
Tunisia	378 100	520 360	594 320	674 740	520 320	593 300
Uganda	7 360	27 310	48 510	40 710	32 350	19 240
Upper Volta	67 260	71 020	79 030	88 630	75 650	79 470
Western Sahara	2 240	2 480	3 920	3 960	4 000	4 140
Zaire	179 890	199 320	202 910	278 880	193 430	162 570
Zambia	70 350	105 140	169 660	102 260	110 230	93 340
Zimbabwe	26 240	38 050	95 830	87 960	61 490	78 580
Total Africa:	12 425 740	13 203 560	17 655 180	20 447 360	18 334 250	18 001 320

Source: ESP Division, FAO, Rome

SELECTED SOCIO-ECONOMIC INDICATORS OF THE AGRICULTURAL SECTOR

- Self-sufficiency ratio : calories domestically produced as a percent of total calorie supply

COUNTRY	AVERAGE 1967-70	1971-80	1974	1975	1976	1977	1978	1979	1980	1981	GROWTH RATE 1967-70	1971-80
WORLD	100.8	100.9	100.1	101.5	102.0	101.3	102.4	100.2	99.4		-0.9	-0.0
AFRICA	102.4	97.0	101.0	98.0	97.2	94.1	95.2	92.0	92.2		-1.4	-1.2
ALGERIA	85.3	67.1	68.5	66.0	71.6	54.7	57.4	56.3	62.4		0.6	-3.9
ANGOLA	109.1	94.5	98.8	97.3	94.2	83.6	86.8	85.7	86.5		0.3	-2.7
BENIN	109.7	101.0	102.7	90.3	97.9	100.5	102.2	99.4	97.5		-1.1	-0.6
BOTSWANA	68.4	66.5	88.1	70.8	85.8	66.4	52.4	41.0	46.9		-0.8	-7.1
BURUNDI	98.7	98.8	99.8	99.0	98.9	98.1	99.6	98.5	98.4		0.4	-0.1
CAMEROON	103.8	100.9	103.4	105.7	101.0	97.7	97.0	98.3	97.5		-0.5	-0.7
CAPE VERDE	50.1	45.8	43.9	48.3	51.6	47.3	48.4	42.7	45.4		-11.7	0.6
CENT AFR REP	97.7	98.3	98.8	90.0	99.0	98.8	98.9	98.6	98.8		-0.6	0.2
CHAD	97.8	97.8	102.4	97.9	97.8	99.2	100.8	97.2	101.4		-0.1	0.7
COMOROS	92.6	86.7	87.9	85.7	87.8	89.0	85.8	85.3	82.9		-0.7	-0.4
CONGO	112.9	95.0	98.4	96.2	96.7	93.3	89.2	86.4	86.1		-2.5	-2.1
EGYPT	91.0	84.3	85.3	84.1	83.1	79.8	79.6	77.8	77.6		1.1	-2.2
ETHIOPIA	101.2	100.1	101.4	102.8	99.9	97.6	96.5	98.2	96.8		-0.2	-0.8
GABON	90.3	76.4	78.6	71.3	67.3	69.4	71.0	73.4	75.6		-1.5	-2.2
GAMBIA	126.9	120.2	129.0	126.9	126.6	119.1	113.9	109.9	104.6		-0.7	-1.9
GHANA	106.1	101.8	107.0	103.7	99.7	97.4	97.8	100.0	98.5		-0.2	-1.0
GUIN BISSAU	104.5	93.6	94.7	100.4	104.2	86.9	92.4	89.4	83.5		-2.6	-1.1
GUINEA	99.5	95.7	96.2	96.5	97.5	96.5	92.6	92.4	90.6		-1.7	-0.9
IVORY COAST	104.2	107.9	112.8	114.6	111.2	108.8	106.6	104.1	103.5		-0.3	-0.2
KENYA	101.5	98.6	98.4	102.8	101.5	100.1	94.8	96.6	96.6		0.9	-0.2
LESOTHO	84.0	74.9	93.2	69.6	63.0	77.7	80.4	70.0	64.1		-4.1	-1.8
LIBERIA	93.3	90.6	94.9	91.3	92.0	90.3	86.5	87.0	84.3		0.4	-1.2
LIBYA	53.8	46.0	47.6	49.6	56.7	49.7	50.8	45.5	44.2		-12.5	1.6
MADAGASCAR	103.0	99.0	100.7	98.4	99.5	93.9	96.1	98.0	97.7		-0.2	-0.4
MALAWI	104.6	103.8	102.0	101.7	103.1	103.5	104.3	103.6	104.6		-2.6	-0.1
MALI	99.0	97.1	98.7	101.9	100.8	96.6	102.1	97.3	88.8		-2.1	-0.1
MAURITANIA	80.8	59.9	62.3	63.0	60.5	55.2	53.3	56.3	52.6		-0.7	-2.8
MAURITIUS	178.2	166.7	178.1	151.6	172.3	164.9	162.3	164.8	130.6		-0.7	-2.0
MOROCCO	98.2	86.5	94.2	81.5	94.2	69.5	86.3	81.1	80.1		-1.0	-2.2
MOZAMBIQUE	109.6	103.4	105.4	98.8	103.1	100.0	96.9	96.0	94.6		0.0	-2.1
NAMIBIA	75.6	70.9	65.2	75.7	75.2	73.4	72.5	70.8	72.4		-2.9	1.2
NIGER	110.9	102.4	107.2	90.1	109.3	103.1	103.8	103.8	106.1		-2.1	0.4
NIGERIA	105.4	97.2	99.6	99.2	97.8	94.8	93.6	92.9	92.4		1.2	-1.2
REUNION	133.9	122.4	120.2	118.8	124.1	126.4	125.7	118.8	116.4		-2.4	-0.4
RWANDA	99.3	98.5	98.7	98.2	98.6	98.4	98.0	98.2	98.2		-0.1	-0.1
SAO TOME PRN	154.8	137.9	164.5	139.8	116.2	124.4	129.1	126.3	124.8		-4.6	-2.9
SENEGAL	112.0	103.9	116.1	121.2	114.1	91.0	113.8	89.5	83.8		-6.6	-2.0
SIERRA LEONE	100.8	97.7	99.5	101.9	97.9	97.1	96.7	91.4	97.0		1.6	-0.6
SOMALIA	94.4	85.7	92.6	85.4	82.9	83.6	83.2	76.5	75.2		-0.8	-2.3
SOUTH AFRICA	114.9	116.4	129.2	115.7	108.3	117.9	115.9	111.0	114.0		-7.9	-0.6
SUDAN	103.0	101.6	106.7	108.3	98.3	104.5	103.5	95.3	95.5		-1.5	-0.6
SWAZILAND	147.4	152.5	159.1	151.7	148.5	146.5	152.0	146.2	159.5		-1.0	-0.3
TANZANIA	100.7	98.2	95.4	96.7	98.3	98.4	100.0	98.0	95.8		0.5	-0.2
TOGO	104.4	98.3	95.5	99.0	100.6	93.6	99.2	96.1	90.8		1.8	-1.2
TUNISIA	80.5	84.7	88.3	95.3	82.7	74.2	72.8	73.2	81.8		-0.3	-2.8
UGANDA	101.8	98.6	100.0	98.3	100.3	97.1	101.1	97.1	97.8		-0.1	-0.0
UPPER VOLTA	101.5	96.0	102.6	101.8	93.4	94.6	96.8	95.5	94.4		-1.5	0.0
ZAIRE	102.3	97.5	97.8	97.9	96.7	97.0	95.4	96.6	96.0		-0.1	-0.5
ZAMBIA	92.1	91.3	95.6	91.7	94.2	90.9	91.3	87.9	86.0		-4.3	-0.7
ZIMBABWE	112.5	115.8	125.0	117.6	119.0	120.1	122.2	103.2	111.8		-2.8	-0.4
N C AMERICA	115.9	125.2	118.8	128.5	129.9	131.4	128.0	132.0	126.7		-2.9	1.2
ANTIGUA-BARB	45.3	28.6	18.7	19.8	19.3	19.5	22.0	22.9	23.6		-12.5	-6.5
BAHAMAS	46.9	44.2	42.3	48.1	51.9	50.3	48.4	47.8	47.1		41.6	4.6
BARBADOS	158.4	124.1	126.1	118.1	120.0	122.3	112.6	114.0	122.7		-3.6	-1.5
BELIZE	156.6	154.0	159.5	155.8	137.8	154.3	164.1	151.7	154.7		-0.5	0.0
BERMUDA	23.8	61.4	54.7	67.5	51.8	74.1	72.2	52.6	51.6		93.2	-1.0
CANADA	130.5	139.3	121.2	134.2	155.5	149.1	151.5	131.6	141.4		-4.2	0.8
COSTA RICA	108.6	112.2	111.2	116.4	112.7	112.1	110.0	108.7	105.1		0.3	-0.8
CUBA	147.5	136.9	134.0	138.8	136.0	137.2	142.1	143.0	133.3		0.6	0.3
DOMINICA	105.9	94.3	98.6	97.7	96.6	96.7	94.6	84.3	85.8		-2.3	-1.3
DOMINICAN RP	135.3	129.7	132.8	128.6	128.6	120.5	122.2	121.9	111.8		1.8	-2.4
EL SALVADOR	97.1	99.0	98.3	103.8	96.3	95.2	100.6	98.5	94.8		1.4	-0.5
GRENADA	88.3	83.6	76.4	81.1	91.3	89.2	93.4	97.1	88.7		-3.2	3.4
GUADELOUPE	144.7	115.1	116.3	109.5	113.5	105.5	108.4	110.7	105.4		-1.8	-2.3
GUATEMALA	101.2	104.6	104.4	104.7	110.2	109.7	102.8	102.1	101.5		0.8	-0.0
HAITI	97.7	91.9	95.2	92.5	89.7	84.8	90.1	87.6	87.2		-0.3	-1.5
HONDURAS	112.5	105.5	104.8	100.4	102.9	106.2	109.4	101.4	104.2		-1.8	-0.8
JAMAICA	115.0	88.6	94.3	88.9	80.5	82.6	83.6	81.1	74.7		-4.5	-3.0
MARTINIQUE	100.3	83.1	84.5	82.4	82.1	82.4	81.6	75.2	71.5		-6.3	-2.4
MEXICO	104.9	96.2	95.9	95.3	95.0	96.3	96.0	69.3	93.3		-1.9	-1.1
NETH ANTILLE	7.3	14.6	16.1	10.1	14.8	14.2	17.6	12.8	16.4		8.3	0.8
NICARAGUA	109.5	107.2	108.0	108.1	111.8	105.9	109.7	103.5	107.2		-0.2	-0.0
PANAMA	105.7	106.2	101.8	106.0	107.1	107.0	110.0	110.0	110.2		0.0	0.9
SAINT LUCIA	113.6	95.5	98.3	92.6	94.0	88.1	94.1	95.5	91.0		-4.6	-1.1
ST KITTS-NEV	172.6	156.8	151.5	149.3	158.5	171.5	167.0	156.3	155.6		-4.5	0.8
ST VINCENT	94.2	87.0	88.1	84.6	81.9	83.0	87.6	87.6	85.6		-1.9	-0.7
TRINIDAD TOB	103.0	86.2	90.3	84.6	89.7	84.7	77.1	72.7	67.9		-0.5	-4.1
USA	114.7	128.3	121.8	133.6	133.1	135.8	130.9	139.1	131.3		-3.2	1.7
SOUTH AMERIC	106.6	108.9	111.4	109.3	111.8	110.9	108.5	107.7	105.7		0.1	-0.1
ARGENTINA	138.8	147.0	146.4	139.8	148.3	142.9	161.3	162.2	147.1		-1.7	1.3
BOLIVIA	87.9	92.4	92.4	96.4	97.5	93.5	92.9	92.5	92.3		0.7	0.7
BRAZIL	101.6	106.2	109.1	107.9	111.1	111.6	102.8	101.5	104.5		1.1	-0.1
CHILE	87.7	82.5	78.1	83.7	84.2	91.0	78.0	82.2	77.2		-0.7	-0.6
COLOMBIA	98.7	97.0	99.3	99.3	97.0	92.2	97.5	98.1	95.5		-0.7	-0.2

Source: FAO, Rome 1984

APPENDIX VI

FILE: AFRCONT1 INTC7782 A1 VM/SP CONVERSATIONAL MONITOR SYSTEM

COMMITMENTS OF CONCESSIONAL AND NON-CONCESSIONAL ASSISTANCE (EXCLUDING TECHNICAL ASSISTANCE GRANTS) TO AGRICULTURE INDIRECT IN CONTINENTAL AFRICA U.S. dollars millions

RECIPIENTS	1977	1978	1979	1980	1981	1982
ALGERIA	0	0	119	0	0	0
ANGOLA	0	0	2	0	0	2
BENIN	6	4	0	3	46	25
BOTSWANA	4	17	1	13	8	11
BURKINA FASO	9	37	16	42	47	92
BURUNDI	3	0	6	29	46	50
CAMEROON	47	38	22	12	63	36
CAPE VERDE	1	8	0	1	9	2
CENT AFRIC REP	0	0	1	5	1	7
CHAD	4	5	1	2	2	2
COMOROS	0	0	0	0	0	0
CONGO	4	0	1	11	1	17
DJIBOUTI	1	0	0	0	0	0
EGYPT	2	23	18	218	71	22
ETHIOPIA	53	4	15	17	17	15
GABON	0	0	1	1	11	0
GAMBIA	19	0	9	4	1	4
GHANA	2	0	4	12	9	1
GUINEA	16	1	0	13	12	4
GUIN BISSAU	2	9	18	10	7	10
IVORY COAST	67	2	46	32	79	77
KENYA	83	91	41	63	52	134
LESOTHO	4	3	1	7	6	17
LIBERIA	15	30	11	10	3	5
LIBYA	0	0	0	0	0	0
MADAGASCAR	6	8	7	14	37	29
MALAWI	1	31	4	28	14	20
MALI	31	8	9	27	34	156
MAURITANIA	4	0	3	14	9	64
MAURITIUS	0	0	0	0	0	19
MOROCCO	37	92	72	34	8	210
MOZAMBIQUE	9	0	10	31	43	63
NIGER	16	8	14	51	18	32
NIGERIA	0	0	31	0	6	1
REUNION	0	0	0	1	0	0
RWANDA	5	8	1	2	42	41
ST HELENA	1	0	0	0	0	0
SENEGAL	1	15	6	45	105	153
SEYCHELLES	0	5	0	0	0	0
SIERRA LEONE	8	1	24	10	0	8
SOMALIA	2	12	2	18	15	4
SUDAN	17	20	28	34	18	9
SWAZILAND	27	21	0	3	5	7
TANZANIA	57	75	211	66	76	98
TOGO	22	11	1	4	21	4
TUNISIA	54	151	74	111	112	55
UGANDA	6	0	0	7	26	21
ZAIRE	10	0	18	22	10	18
ZAMBIA	24	21	0	10	10	27
ZIMBABWE	0	0	0	8	18	90
AFRICA UNALLOCATED	3	9	6	3	80	111
WEST AFRICA UNALLOCATED	0	0	0	0	0	42
TOTAL AFRICA CONTINENT	681	770	851	1046	1198	1815

NOTE: The activities included in indirect agriculture are forestry, agro-industries, manufacture of inputs, rural development and rural infrastructure, regional and and river development

"0" indicates either no commitments or commitments with a value of less than 0.5 million US dollar

FILE: AFRCONT1 NATC7782 A1 VM/SP CONVERSATIONAL MONITOR SYSTEM

COMMITMENTS OF CONCESSIONAL AND NON CONCESSIONAL ASSISTANCE (EXCLUDING TECHNICAL ASSISTANCE GRANTS) TO AGRICULTURE
NARROW DEFINITION IN CONTINENTAL AFRICA U.S. dollars millions

RECIPIENTS	1977	1978	1979	1980	1981	1982
ALGERIA	0	0	0	8	0	3
ANGOLA	0	1	2	9	14	34
BENIN	2	6	0	0	1	3
BOTSWANA	9	1	3	11	7	32
BURKINA FASO	23	18	12	35	28	50
BURUNDI	3	6	0	16	21	15
CAMEROON	33	92	33	87	21	118
CAPE VERDE	2	5	7	16	5	4
CENT AFRICA REP	8	2	10	2	6	26
CHAD	21	15	8	1	11	8
COMOROS	9	0	0	11	2	1
CONGO	3	7	2	12	3	2
DJIBOUTI	0	1	0	7	0	1
EGYPT	67	39	4	113	179	124
EQ GUINEA	0	0	9	0	9	1
ETHIOPIA	56	33	10	16	60	44
GABON	3	5	0	38	9	20
GAMBIA	2	1	2	11	6	18
GHANA	31	12	1	71	9	29
GUINEA	0	15	16	22	3	1
GUIN BISSAU	9	4	10	4	9	7
IVORY COAST	25	56	29	32	16	70
KENYA	77	123	106	88	64	55
LESOTHO	1	6	12	12	6	5
LIBERIA	17	21	35	5	9	30
MADAGASCAR	13	15	43	5	43	37
MALAWI	20	28	10	3	6	7
MALI	32	34	3	15	44	22
MAURITANIA	4	6	35	55	29	21
MAURITIUS	1	1	3	11	4	10
MOROCCO	160	65	228	28	45	49
MOZAMBIQUE	32	5	16	54	40	30
NIGER	18	5	41	32	18	49
NIGERIA	62	30	59	66	400	0
REUNION	1	0	0	0	0	0
RWANDA	26	3	14	30	30	10
ST HELENA	1	0	0	0	0	0
SAO TOME	2	9	0	1	3	4
SENEGAL	23	27	27	28	60	70
SEYCHELLES	2	2	3	2	2	2
SIERRA LEONE	6	0	7	9	41	17
SOMALIA	75	15	37	92	67	28
SUDAN	27	60	108	174	136	110
(S)WAZILAND	14	23	0	0	4	7
(T)ANZANIA	42	43	69	73	152	106
(T)OGO	4	2	18	10	6	3
(T)UNISIA	42	58	36	147	79	64
(U)GANDA	0	0	0	30	34	36
(Z)AIRE	15	40	12	59	56	34
(Z)AMBIA	13	43	58	26	77	65
(Z)IMBABWE	0	0	0	12	4	48
(A)FRICA UNALLOCATED	12	7	11	2	26	72
(T)OTAL AFRICA CONTINENT	1071	985	1160	1586	1898	1602

(N)OTE: Narrow definition in this table excludes forestry to be closer to the concept of food production
0" indicates either no commitments or commitments with a value of less than 9.5 million US dollars

APPENDIX VIII

FREQUENCY DISTRIBUTION OF ANNUAL RATES OF CHANGE (1978-82) OF PUBLIC EXPENDITURE ON AGRICULTURE, BY REGION a/ (AT CONSTANT 1978 PRICES, LOCAL CURRENCY)

	Annual rates of change %					
	-15.0	-15 to -5.1	-5 to 5	5.1 to 15.0	15.0	Total Countries
RICA		Lesotho, Gambia, Ghana, CAR, Tanzania, Somalia, Cameroon	Swaziland, Mauritius, Burundi, Benin, Guinea, Zaire, Kenya, Mali	Ethiopia, Algeria, Morocco, Tunisia	Liberia, Gabon	21
AND FAR EAST			Philippines, Pakistan	Nepal, Korea Rep., Bangladesh	Malaysia Thailand, Sri Lanka	8
TIN AMERICA	Panama, Argentina, Haiti	Bolivia, Chile, Costa Rica	Surinam, Honduras Jamaica, Guatemala, Colombia	Brazil, El Salvador, Venezuela, Trinidad and Tobago, Mexico, Uruguay	Paraguay, Ecuador, Peru	20
AR EAST	Iraq, Libya	Sudan	Syria, Turkey	Cyprus, Egypt	Jordan	8
. COUNTRIES	5	11	17	15	9	57

eflated by the consumer price index (CPI) for each country.

Countries underlined are LDC.

e: FAO, Policy Analysis Division and Statistics Division.

Agricultural Research Expenditures and Manpower

Region/Subregion	Expenditures (000 Constant 1980 US$) 1959	1970*	1980	Manpower (Scientist Man-Years) 1959	1970*	1980
Western Europe	274,984	918,634	1,489,538	6,251	12,547	19,540
Northern Europe	94,718	230,135	409,527	1,818	4,409	8,027
Central Europe	141,054	563,334	871,233	2,888	5,721	8,827
Southern Europe	39,212	125,165	208,828	1,545	2,417	2,686
Eastern Europe and USSR	568,284	1,282,212	1,492,783	17,701	43,709	51,614
Eastern Europe	195,896	436,094	553,400	5,701	16,009	20,220
USSR	372,388	846,118	939,383	12,000	27,700	31,394
North America and Oceania	760,466	1,485,043	1,722,390	8,449	11,688	13,607
North America	668,889	1,221,006	1,335,584	6,690	8,575	10,305
Oceania	91,577	264,037	386,806	1,759	3,113	3,302
Latin America	79,556	216,018	462,631	1,425	4.880	8,534
Temperate South America	31,088	57,119	80,247	364	1,022	1,527
Tropical South America	34,792	128,958	269,443	570	2,698	4,840
Caribbean and Central America	13,676	29,941	112,941	491	1,160	2,167
Africa	119,149	251,572	424,757	1,919	3.849	8,088
North Africa	20,789	49,703	62,037	590	1,122	2,340
West Africa	44,333	91,899	205,737	412	952	2,466
East Africa	12,740	49,218	75,156	221	684	1,632
South Africa	41,287	60,752	81,827	696	1,091	1,650
Asia	261,114	1,205,116	1,797,894	11,418	31,837	46,656
West Asia	24,427	70,676	125,465	457	1,606	2,329
South Asia	32,024	72,573	190,931	1,433	2,569	5,691
Southeast Asia	9,028	37,405	103,249	441	1,692	4,102
East Asia	141,469	521,971	734,694	7,837	13,720	17,262
China	54,166	502,491	643,555	1,250	12,250	17,272
World Total	2,063,553	5,358,595	7,390,043	47,163	108,510	148,039

*The 1970 figures are an average of data from 1968 and 1971.

Note: Data for this table are drawn from Appendix Table 1.

Source: Judd, Boyce & Evenson (1983).

APPENDIX X

Agricultural Extension Expenditures and Manpower

Region/Subregion	Expenditures (000 Constant 1980 US$) 1959	1970*	1980**	Manpower (Workers) 1959	1970*	1980**
Western Europe	234,016	457,675	514,305	15,988	24,388	27,881
Northern Europe	112,983	187,144	201,366	4,793	5,638	6,241
Central Europe	103,082	199,191	236,834	7,865	13,046	14,421
Southern Europe	17,950	71,340	76,105	3,330	5,704	7,219
Eastern Europe and USSR	367,329	562,935	750,301	29,000	43,000	55,000
Eastern Europe	126,624	191,460	278,149	9,340	15,749	21,546
USSR	240,705	371,475	472,152	19,660	27,251	33,454
North America and Oceania	383,358	601,950	760,155	13,580	15,113	14,966
North America	332,892	511,883	634,201	11,500	12,550	12,235
Oceania	50,466	90,067	125,954	2,080	2,563	2,731
Latin America	61,451	205,971	396,944	3,353	10,782	22,835
Temperate South America	5,741	44,242	44,379	205	1,056	1,292
Tropical South America	47,296	136,943	294,654	2,369	7,591	16,038
Caribbean & Central America	8,414	24,786	57,911	779	2,135	5,505
Africa	237,883	481,096	514,671	28,700	58,700	79,875
North Africa	84,634	176,498	172,910	7,500	14,750	22,453
West Africa	53,600	181,324	204,982	9,000	22,000	29,478
East Africa	39,496	86,096	106,030	9,000	18,750	24,211
South Africa	60,153	37,178	30,749	3,200	3,200	3,733
Asia	143,876	412,937	507,113	86,900	142,500	148,780
West Asia	28,211	97,315	119,780	7,000	18,800	16,535
South Asia	56,422	87,727	82,194	57,000	74,000	80,958
Southeast Asia	19,747	55,441	63,959	9,500	30,500	33,987
East Asia	39,496	172,454	241,180	13,400	19,200	17,300
China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
World Total	1,427,913	2,722,564	3,443,489	177,521	294,483	349,337

*The 1970 figures are an average of data from 1968 and 1971.
**1974 data has been used where no data were available for 1980. In other cases, the 1980 data are averages for 1974-1980.

Note: Data for Latin America, Western Europe, and North America/Oceania are drawn from Appendix Table 2. Data for Eastern Europe and USSR, Africa and Asia are estimates.

Source: Judd, Boyce & Evenson (1983).