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THE AGRICULTURAL ECONOMY OF MOZAMBIQUE

Inception Report
prepared by
the FAO Representative in the
People's Republic of Mozambique

FOOD AND AGRICULTURAL ORGANIZATION OF THE UNITED NATIONS

MAPUTO, JULY 1982

PREFACE

This inception report of the FAO Representative in the People's Republic of Mozambique presents a comprehensive review and analysis of the economy of the country with particular emphasis on food and agriculture and the status of the FAO Programme.

The report, in addition to serving as inception report, also covers the period from 1 January to 30 June 1982 and as such also covers the subjects normally included in the six-monthly reports of the FAO Representative.

The report follows the guidelines attached to the letter of appointment of the FAO Representative and the letter of 10 April 1981 from the Assistant Director-General, Development Department. The revised guidelines on reporting by FAO Representatives dated 16 June 1982 have been taken into account to the extent possible while avoiding delay in the submission of the report.

In addition to those references explicitly mentioned in the text extensive use has been made of articles published in the daily newspapers 'Noticiás' and 'Diário de Moçambique' and the monthly magazines Tempo and AIM. Also the informative documents issued by the Mozambican Centre of Information (CEDIMO) have been consulted, and the same is of course the case for available project documents, reports and other internal FAO materials as well as FAO publications and statistics.

It will be noted from the list of references, however, that documents such as UNDP development assistance summaries and World Bank or IMF country reviews have not been listed. This is due to the fact that they do not exist in the special case of Mozambique, which has of course made the preparation of this report more difficult.

Two final notes of caution are necessary. Firstly, the report gives a number of data which to the extent feasible have been checked for consistency and accuracy. However, all data should be interpreted with due respect to the general lack and low quality of available statistics. None of the data should therefore be taken as exact, but rather as approximations where later revision will be needed. Secondly, the data do not necessarily come from official Government publications or other sources, and therefore in no way should be used as such. The data and conclusions in the report are those considered appropriate by the FAO Representative at the time of its preparation. They may be modified in the light of further knowledge gained in the future.

Maputo, 31 July 1982

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LIST OF ABBREVIATIONS

AfDB	–	African Development Bank
AFPLAN	–	Regional Food Plan for Africa
BM	–	Bank of Mozambique (Banco de Moçambique)
CEDIMO	–	Mozambican Centre of Documentation and Information (Centro de Documentação e Informação Moçambicana)
CAIA	–	Agri-Industrial Centre of Angonia (Centro Agro-Industrial de Angónia)
CIRDAFRICA	–	Centre for Integrated Rural Development in Africa
CNAC	–	National Commission of Communal Villages (Comissão Nacional das Aldeias Comunais)
CNP	–	National Planning Commission (Comissão Nacional do Plano)
DNEA	–	National Directorate of Agrarian Economy (Direcção Nacional de Economia Agrária)
DFFB	–	Department of Forestry and Wildlife (Departmento de Florestas e Fauna Bravia)
DNRH	–	National Directorate for Human Resources (Direcção Nacional de Recursos Humanos)
DNTA	–	National Technical Agrarian Directorate (Direcção Nacional Técnica Agrária)
DPA	–	Provincial Director of Agriculture (Director Provincial de Agricultura)
ECA	–	Economic Commission for Africa
EEC	–	European Economic Community
FAO	–	Food and Agriculture Organization of the United Nations
FRELIMO	–	Mozambican Liberation Front (Frente de Libertação de Moçambique)
GCP	–	Government Cooperative Programme
GCPS	–	Food Security Assistance Scheme
GODCA	–	Office of Organization and Development of Agrarian Cooperatives (Gabinete de Organização e Desenvolvimento das Cooperativas Agrárias)

IDP	-	Institute of Fisheries Development (Instituto de Desenvolvimento Pesqueiro)
IFS	-	International Fertilizer Scheme
INA	-	National Sugar Institute (Instituto Nacional de Açucar)
INIA	-	National Agricultural Research Institute (Instituto Nacional de Investigação Agronómica)
INIV	-	National Institute of Veterinary Research (Instituto Nacional de Investigação Veterinária)
INV	-	National Veterinary Institute (Instituto Nacional Veterinário)
IPF	-	Indicative Planning Figure
ISCDD	-	International Scheme for Coordination of Dairy Development
LAM	-	Mozambique Airlines (Linhas Aéreas de Moçambique)
MONAP	-	Mozambique Nordic Agricultural Programme
NGO	-	Non-Governmental Organization
OAU	-	Organization of African Unity
OJM	-	Mozambican Youth Organization (Organização da Juventude Moçambicana)
OMM	-	Mozambican Women Organization (Organização da Mulher Moçambicana)
OSRO	-	Office of Special Relief Operations
PEC	-	Annual Central State Plan (Plano Estatal Central)
PFL	-	Prevention of Food Losses
PPI	-	Ten-Year Indicative Perspective Plan (Plano Prospectivo Indicativo)
SADCC	-	Southern Africa Development Coordination Conference
SERLI	-	State Secretariat for the Accelerated Development of the Limpopo-Incomati Regions (Secretariado do Estado para o Desenvolvimento Acelerado do Limpopo-Incomati)
SIDA	-	Swedish International Development Agency
TCDC	-	Technical Cooperation among Developing Countries
TCP	-	Technical Cooperation Programme
TTA	-	Air Transport and Work (Transportes e Trabalho Aéreo)
UDA	-	Agricultural Management Unit (Unidade de Direcção Agrícola)
UDC	-	Livestock Management Unit (Unidade de Direcção de Carnes)
UDRA	-	Management Unit for Food Stuffs (Unidade de Direcção de Ramo Alimentar)

UNDP	-	United Nations Development Programme
UNFPA	-	United Nations Fund for Population Activities
UNHCR	-	United Nations High Commission for Refugees
UNICEF	-	United Nations Children's Fund
WHO	-	World Health Organization

1. COUNTRY INFORMATION

1.1 GEOGRAPHICAL AND PHYSICAL FEATURES

1.1.1 Area and Physiography

The People's Republic of Mozambique covering a total area of some 786 380 km^2 plus approximately 13 000 km^2 of inland waters is situated on the East Coast of Southern Africa between latitudes 11° and 27° South and longitude 30° and 41° East. It is bordered by six countries: Tanzania (in the north), Malawi, Zimbabwe, Zambia and Swaziland (to the west) and South Africa (in the south). Total border length is 4 330 km, and the largest measurements are 1 965 km from south to north and 1 130 from east to west. The 2 470 km generally sandy coastline to the east faces the Indian Ocean with a number of islands. Figure 1, below, gives a general map of Mozambique and Figure 2 the administrative division.

The country may be divided into five geographic areas following the altitude:

0-200 m: A belt covering approximately 42 percent of the land area along the coastline and deeply inland along rivers. It is narrow in the north and widens progressively to the south.

200-500 m: A transitional zone, mainly in the northern and western parts of the country, covers some 29 percent of the land area and rises gradually from east to west.

500-1 000 m: A zone, mainly in the northwest of the country, but also in some of the western parts of the Central region. The area is also transitional, with hills and low plateaus covering some 25 percent of the total land area.

1 000-1 500 m: An area constituted by scattered plateaus surrounded by the 500-1 000 m zone, mainly in the west and occupying approximately 4 percent of the land area.

Above 1 500 m: Scattered mountains above the plateaus, occupying less than 1 percent of the total land area. The highest point, at the Zimbabwean border, is 2 436 metres above the sea level.

Mozambique is sectioned by some 25 main rivers which all flow eastwards into the Indian Ocean. The largest and historically most important river is the Zambezi whose 820 km Mozambican section is navigable for 460 km. This river which flows from eastern Angola provided Portuguese colonialists with easy access to the interior of Africa from the East Coast. Other main rivers include Rovuma, Messala, Lurio, Ligonha, Pungwe, Buzi, Save, Limpopo, Incomati and Maputo.

Figure 1 Map of Mozambique

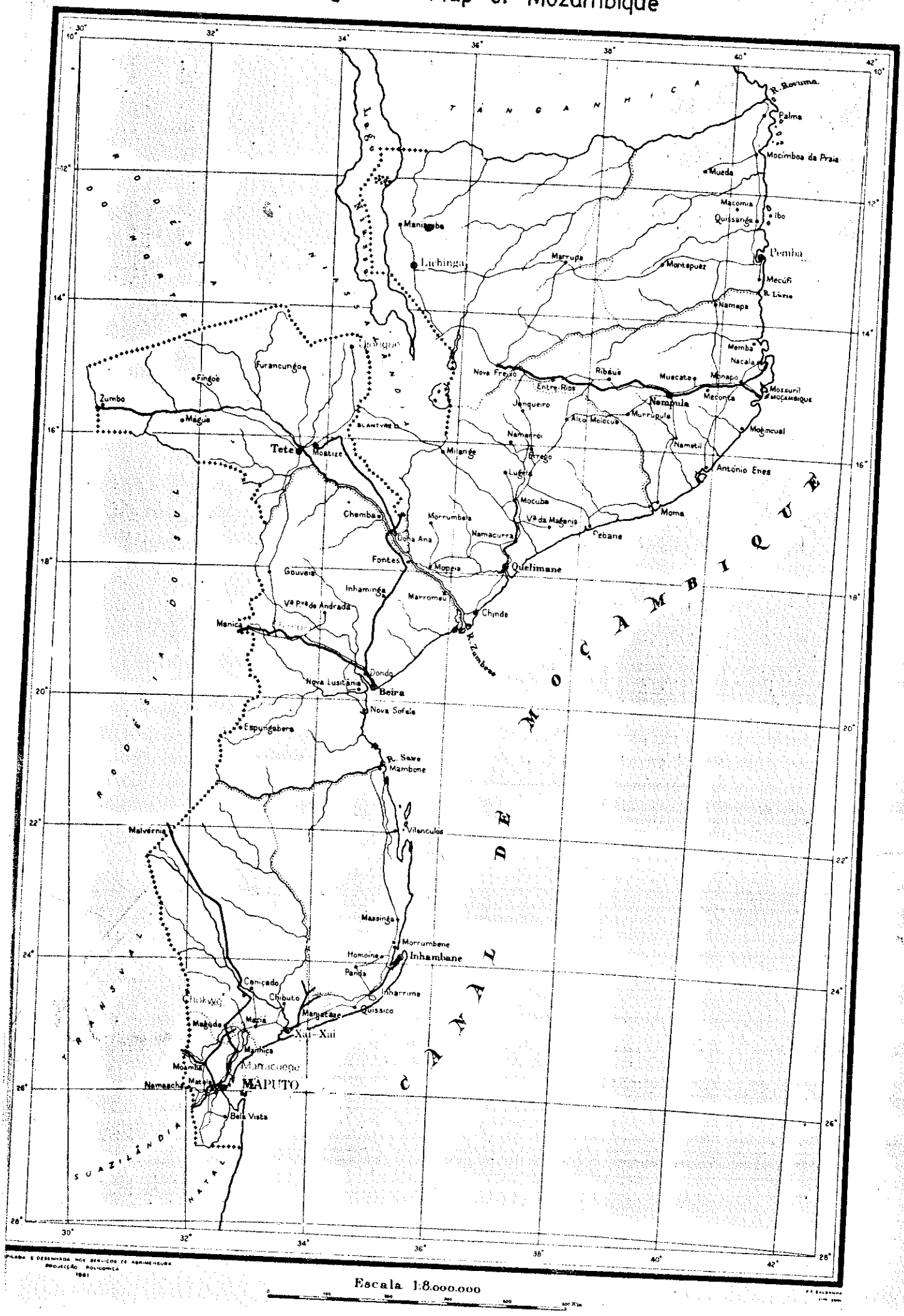
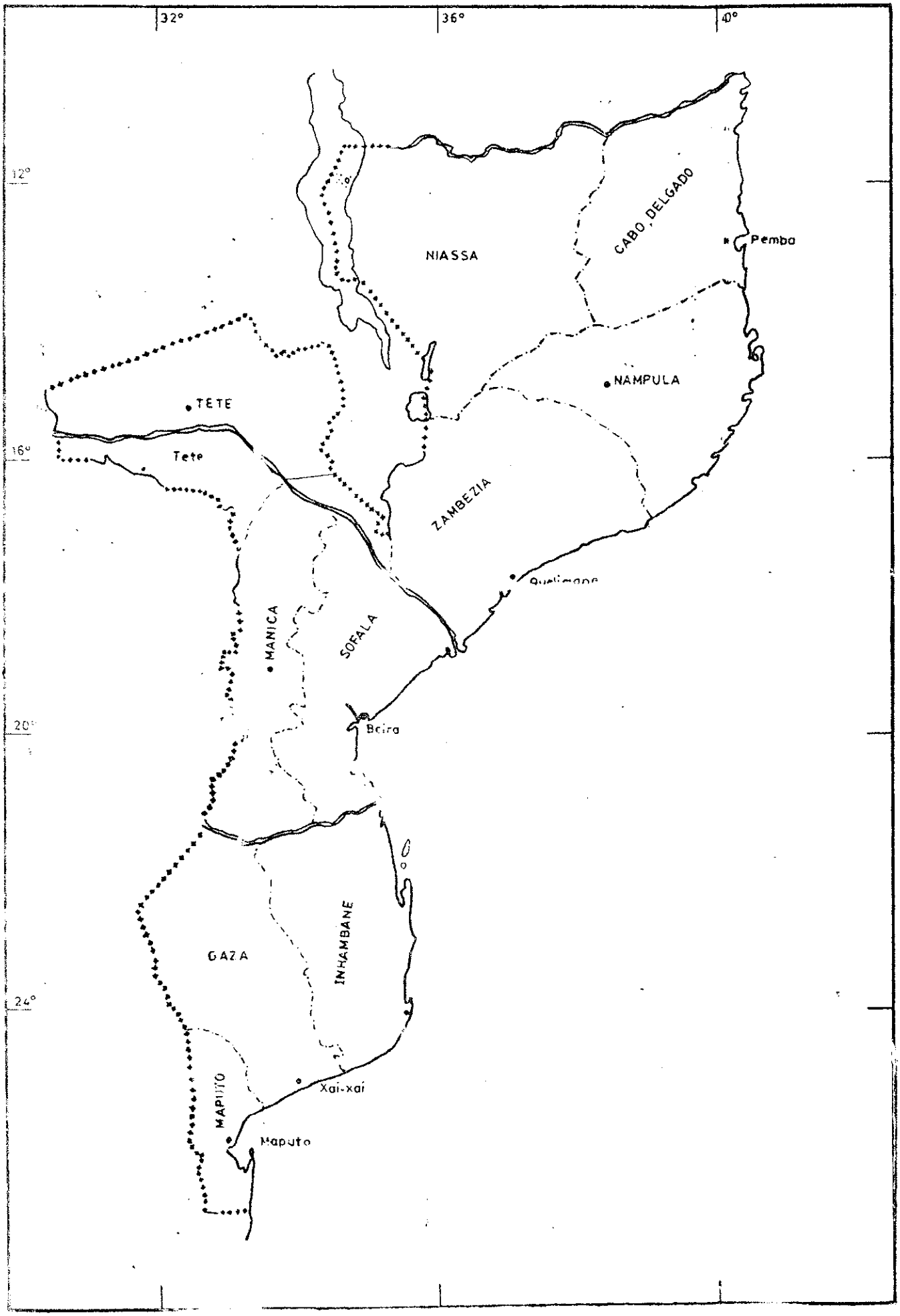


Figure 2 Administrative Division of Mozambique



Besides a large number of small coastal lakes particularly in the southern half of the country there are important inland lakes, including the Lake Niassa, divided between Mozambique, Tanzania and Malawi; and the Lake Cahora Bassa.

1.1.2 Climate

Climatically, four types can be identified:

Tropical humid: Dominant along the coast and in the north and centre of the country and characterized by a rainy season from October/December to March/June which normally lasts longer than the dry season. Rainfall ranges from 240 to 300 mm in January to less than 20 mm in July with an annual total from approximately 1 000 to more than 1 800 mm. Temperatures range from 25°C to almost 30°C in January and from 22°C to 25°C in July with an annual average of up to 28°C.

Tropical dry: Dominant in the southern and northwest of the Central region of the country and characterized by a rainy season from October/December to January/June. Rainfall ranges from 120 to 150 mm in January to less than 10 mm in August, and with some areas completely without rain for up to three-four months. Annual total ranges from 400 to 800 mm. Temperatures range from 28°C to slightly over 30°C in the warmest period in November-February and slightly under 20°C to approximately 25°C in July with an annual average of up to 28°C.

Tropical modified by altitude: Mainly existing in the west of the Central region and northwest of the country and characterized by a rainy season from November/December to March/April. Rainfall ranges from approximately 240 mm to almost 350 mm in January to less than 10 mm in August/September. Annual totals are relatively high ranging in general from more than 800 mm to more than 2 200 mm. Temperatures are relatively low ranging from slightly over 20°C to 25°C in January and from 16°C to 19°C in July with an annual average of up to approximately 24°C.

Tropical semi-arid: This relatively small area in the south of the country is characterized by a very low rainfall of less than 400 mm a year and tropical temperatures with an annual average of up to 26°C.

The predominant humidity ranges from 60 percent to 80 percent classifying the country as a whole as being moderately humid.

1.1.3 Soils and Vegetation

The variability of the soils of Mozambique is considerable, the most important group being alluvial, distributed along the river valleys. Seven broad soil regions have been identified.

The natual vegetation can be broadly classified into three main groups: dense forest, open forest and savanna. Dense forest is especially to be found in the Central Highlands in patches whereas open forest and savanna is a general

feature occupying two-thirds of the total area of the country. An estimate illustrating the extent of forest is that 25 percent of the land is covered with forest or wooded savanna. In relation to the distribution of the forest it may be noted that north of the Rio Save practically the whole area is covered with deciduous open forest with an undergrowth of tall, fibrous unpalatable grasses. South of the Save particularly in the drier inland areas a wooded savanna takes over and tree and grass species become progressively lower moving inland away from the coast. The dry inland has many palatable grasses.

1.1.4 Urban Areas

The main urban areas are generally situated along the coast, the most important being Maputo, capital of Mozambique, and situated in the far south; Beira in the middle of the country, Quelimane, north of Beira and Nampula yet further north, but contrary to the others situated inland. Maputo has a population of almost 1 million and the other cities mentioned up to 100 000 people. There are ten provinces, listed below with the capital of the province in parentheses: Cabo Delgado (Pemba), Niassa (Lichinga), Nampula (Nampula), ambezia (Quelimane), Tete (Tete), Manica (Chimoio), Sofala (Beira), Inhambane (Inhambane), Gaza (Xai-Xai) and Maputo (Maputo).

1.2 HISTORY

The history of Mozambique can be discussed under the following four periods: Pre-colonial, colonial, liberation struggle and post-Independence.

1.2.1 Pre-colonial Period

Not much is known of the history of Mozambique before the arrival of the Bantu peoples in the first centuries A.D., as the history of the African people was not investigated sufficiently during the colonial period. However, relevant work has now been initiated by the Archeology Department at the National University Eduardo Mondlane.

Over the centuries after their arrival the Bantu-speaking people established their communities in Mozambique, and the fact that they brought with them great herds of cattle in some cases insured them against periods of drought and poor harvests. This situation was propicious for development leading to the establishment of the powerful Shona kingdoms in Mozambique and Zimbabwe from approximately 1200 A.D. which dominated the Zimbabwean plateau and at times the Mozambican coastal plains.

The Mozambican people were in contact with Indonesian and Arab traders as far back as 300 A.D. and from 770 A.D. Mozambique was integrated in the Indian Ocean trade network. From approximately 1100 A.D. the trade increased and was controlled by the Arabs. The Arab life style influenced the people in the cities and even today the language and culture bear distinct evidence to this influence.

The most important trade was in gold. In the Zambezi-Limpopo area gold mines 7 000 years old have been found; but since the establishment of the Shona kingdoms their exploitation was intensified, and became the basis for the Arab controlled cities.

The trade in gold, but also in ivory, other metals and hides attracted the Portuguese and from 1505 they became established at Sofala and started to move inland, especially up the Zambezi River. However, the Portuguese occupation was initially limited to the cities on the coast and some trading stations up the Zambezi River. Strong African states were established from 1500 by the Shona and Maravi peoples based on food self sufficiency and on profitable regional and interregional trade.

Part of the Portuguese influence was based on the 'prazo' system whereby a parcel of land was given to Portuguese settlers who had absolute power and authority over the local people. Some of the settlers became so powerful that they were not really under the control of the Portuguese administration. However, the prazos were not very successful in agriculture and subsequently declined.

Due to rivalry between paramount chiefs a gradual disruption of authority brought about a decline in production and traditional trade stimulating the advent of slavery which lasted from 1645 to 1850, when officially abolished.

From 1800 the involvement of the Portuguese increased in slave trade, and the slaves were now exported rather than used in agriculture. This led to a drastic decline in population especially in the northern and central regions, and a consequent drop in agricultural production which disrupted the economy. Then, the profits made by the Portuguese and by the Chiefs on the trade were not invested.

From 1820 the developments in the south were characterized by the Ngoni invasion which led to a further disruption of the economy and accumulation of wealth among the Ngoni Chiefs.

All these events brought about changes in the traditional economic and social life. When slave trade was abolished in 1850 high taxes, and forced labour were institutionalized and this coupled with the disruption provoked by the Ngonis induced the men into an expanding labour market, being consequent to the newly-opened sugar and mine industries in South Africa, leaving food production activities in the hands of the women and the children.

Between 1500 and the end of the 19th Century the struggle was intensified among Africans, Portuguese and Arabs in Mozambique over the control of trade. The establishment of a colonial system was now approaching.

1.2.2 The Colonial Period

After the Berlin Conference in the mid eighties the Portuguese intensified their occupation of Mozambique which led to major battles. However, Portugal did not itself have sufficient capital and power to enforce the occupation and to initiate an economic development which was therefore only made possible through the investment of foreign capital and companies (British, Rhodesian and South African in particular). These Companies were

given wide-ranging concessions and administrative rights so that by 1917 when the occupation was completed Mozambique was administered by foreign capital and plantations run by Europeans, at times established on the basis of the former prazos.

Forced labour and taxes were introduced by law forcing the African population to sell their labour power and work on plantations and major investment programmes such as the railroads or in the South African mines. Finally the big enterprises and small Portuguese traders took over all trade thereby monopolising purchases to and from the African farmers.

The metropoly received payments in gold directly from South Africa and paid the workers in escudos (below the prevailing exchange rate) for the mine labour input which amounted to some 80 000-115 000 people equivalent to approximately 25 percent of the total active male labour force. Portugal also received concession payments from the companies besides the above-mentioned taxes on the African population.

Consequent to the change of Government in Portugal in 1926 a number of changes in the colonial policy were introduced. The basic economic structure and the dependence on neighbouring countries were not changed, but the new Government reinforced means to insure that a bigger surplus was extracted. New labour laws were introduced which led to the implementation of a forced labour system where practically all Mozambican men had to work at least six months of the year as wage labour.

The farmers were forced to produce goods needed in the metropoly rather than basic foodstuffs, and especially cotton production was increased.

In the short run the policy was successful from the Portuguese point of view as a greater surplus was extracted; and Mozambique became a major export market for Portuguese products. However, the Salazar regime also attempted to control the foreign companies and imposed strict investment controls. These implied that over a long period no new investments were made thereby leading to stagnation.

The last 15 years of colonial rule were characterized by the struggle for independence and rapid changes in the colonial economy. The war was expensive and Portugal therefore had to open up for foreign investments again and emphasis was given to construction of infrastructure and the number of Portuguese immigrants increased rapidly.

The labour law was changed, but no real change took place immediately and although some social improvements were initiated under international pressure these were grossly insufficient and had no ~~real impact~~. ~~Furthermore~~, Mozambique's role as supplier of raw materials at artificially low prices to Portugal and of cheap labour to neighbouring countries and to the foreign and Portuguese-owned plantations and farms which were quickly being established, was reinforced and institutionalized.

The economic policies led to a complete neglect of the traditional rural sector. Emphasis was put on cash crops such as cotton, sisal, tobacco, copra, tea, sugar cane and cashew, and infrastructure investments were geared towards the needs of neighbouring South Africa and Rhodesia which dominated the region. The industry which was established was little diversified and heavily geared towards production of luxury items for consumptipn by Portuguese and dependent on import of raw materials and other inputs.

In addition to the above, legal measures to divide the population into Portuguese, indigenous people, 'assimilados' (assimilated), 'mulatos' and Indians of various castes were introduced to confirm existing economic and social differences.

1.2.3 The Liberation Struggle

The struggle for liberation was given its modern form with the formation of the liberation movement 'Frente de Libertação de Moçambique' (FRELIMO) in June 1962. The initial outlook was based on the general wind of change which swept the African Continent and the movement was in essence constitutionalist and non-violent.

However, from 1964 FRELIMO opted for armed struggle and by 1970 it effectively controlled a third of the country mainly in the north. In the early seventies a front was opened in Tete and by 1974 FRELIMO forces had penetrated as far south as the Manica and Sofala provinces.

The years 1966-69 were characterized by two opposing lines within the leadership of FRELIMO; but the Second Congress in 1968 marked the victory of the progressive line, then headed by FRELIMO's first President Eduardo Mondlane. However, in 1969 he was assassinated and succeeded by a triumvirate comprising of Samora Moises Machel, Marcelino dos Santos and Uria Simango, who was expelled in early 1970, and soon afterwards the leadership of FRELIMO and the armed struggle was entrusted to Samora Moises Machel with Marcelino dos Santos as his second in command.

After the Portuguese Armed Forces overthrew the Lisbon Government on 25 April 1974 and the intensification of the liberation struggle official talks were initiated and on 7 September 1974 the Lusaka Agreement was signed. This Agreement led to the establishment of a transitional Government with a majority of FRELIMO members and on 25 June 1975 the People's Republic of Mozambique under the leadership of FRELIMO and with a People's Assembly as the supreme state authority was proclaimed.

1.2.4 Post-Independence History

The period after 1975 has been characterized by national reconstruction and consolidation, but also by continuing conflict and tension on the frontiers accompanied by externally-financed sabotage within Mozambique. Reconstruction has also been hampered by a series of major natural disasters such as floods, cyclones, droughts and foot and mouth disease. The Government's implementation of the United Nations Resolution on Sanctions against Southern Rhodesia and

support to the Patriotic Front had serious effects on the economy and the same is true in relation to South African retaliations such as the abolition of the gold payments of miners' deferred wages.

Immediately upon Independence, the Council of Ministers decided on several important measures as a first step to change the entire structure of the society and the economy. All land was to be owned by the people under the control of the State and the collection of rent by private people was banned. All schools including universities were nationalized and to be replaced by a new Mozambican system. Private medical practice was prohibited and private clinics and mission hospitals were nationalized. Private law practice was abolished and the judicial system would be reorganized.

In February 1977 FRELIMO held its Third Congress and the Central Committee proposed the transformation of FRELIMO into a Marxist-Leninist vanguard party of workers and peasants. A first strategy for development was formulated. The basis for the general elections which ended on 4 December 1977 was laid down and resulted in the establishment of the People's Assembly and assemblies at provincial, district, city and local level.

The national campaign for structuring the Party was initiated in 1978, and in view of the serious economic problems resulting from internal sabotage and mismanagement and the legacy left by the Portuguese colonialists, major enterprises were nationalized.

Following the end of the national liberation war in Rhodesia, which involved Mozambique in a number of ways, and the establishment of the new Zimbabwean state, a major political and economic offensive was initiated in Mozambique in January 1980. The development of a ten-year plan for the 1981-90 decade which has been defined as the 'Decade for the country's victory over underdevelopment' was set in motion.

1.3 POLITICAL AND EXECUTIVE STRUCTURE

1.3.1 State Apparatus

The new Constitution which came into force simultaneously with the declaration of Independence and which has later been modified, established rights, privileges and duties of the people with the President as Head of State and Chairman of FRELIMO.

The People's Assembly with a maximum of 230 members was elected for a five-year period in the end of 1977 and meets twice a year. It is the supreme state authority and must pass all laws and Government budgets including all legal acts of the Standing Commission of the People's Assembly consisting of 15 members. They are Assembly members and elected by the Assembly among candidates proposed by the Central Committee of FRELIMO. The President convenes and guides both the Assembly and the Standing Commission.

Initiative to propose new laws pertain to the Central Committee of FRELIMO, which defines the principles for the legislation, the Standing Commission of the People's Assembly, other Commissions of the Assembly and the Council of Ministers.

Executive power is vested in the President who appoints Ministers, Vice-Ministers and Provincial Governors and directs the work of the Council of Ministers which is the Government of Mozambique. The 22 members of the Council are in their work guided by Assembly deliberations and decisions of the President.

For the purposes of territorial administration Mozambique is divided into ten provinces (Maputo, Gaza, Inhambane, Sofala, Manica, Tete, Nampula, Niassa and Cabo Delgado), some 116 districts and 864 localities. The provinces are governed by the Provincial Government headed by the Governor, who is appointed by the President whose representative he is. The Governor is responsible for his activities before FRELIMO, the Council of Ministers and the President. Other members of the Provincial Government are appointed by the relevant Ministers to whom they are directly responsible as well as to the Governor.

A Provincial Assembly is passing laws of relevance only at the provincial level and the Government bases its activities on the deliberations of this institution as well as those of the People's Assembly and the Council of Ministers.

At the district, locality and city level a similar structure is established (see Figure 3, below).

The President is also Commander in Chief of the Mozambican Armed Forces which have military Commanders at provincial level. It is the declared policy that the Army should not only concern itself with its military role but get integrated into production and social activities.

1.3.2 FRELIMO

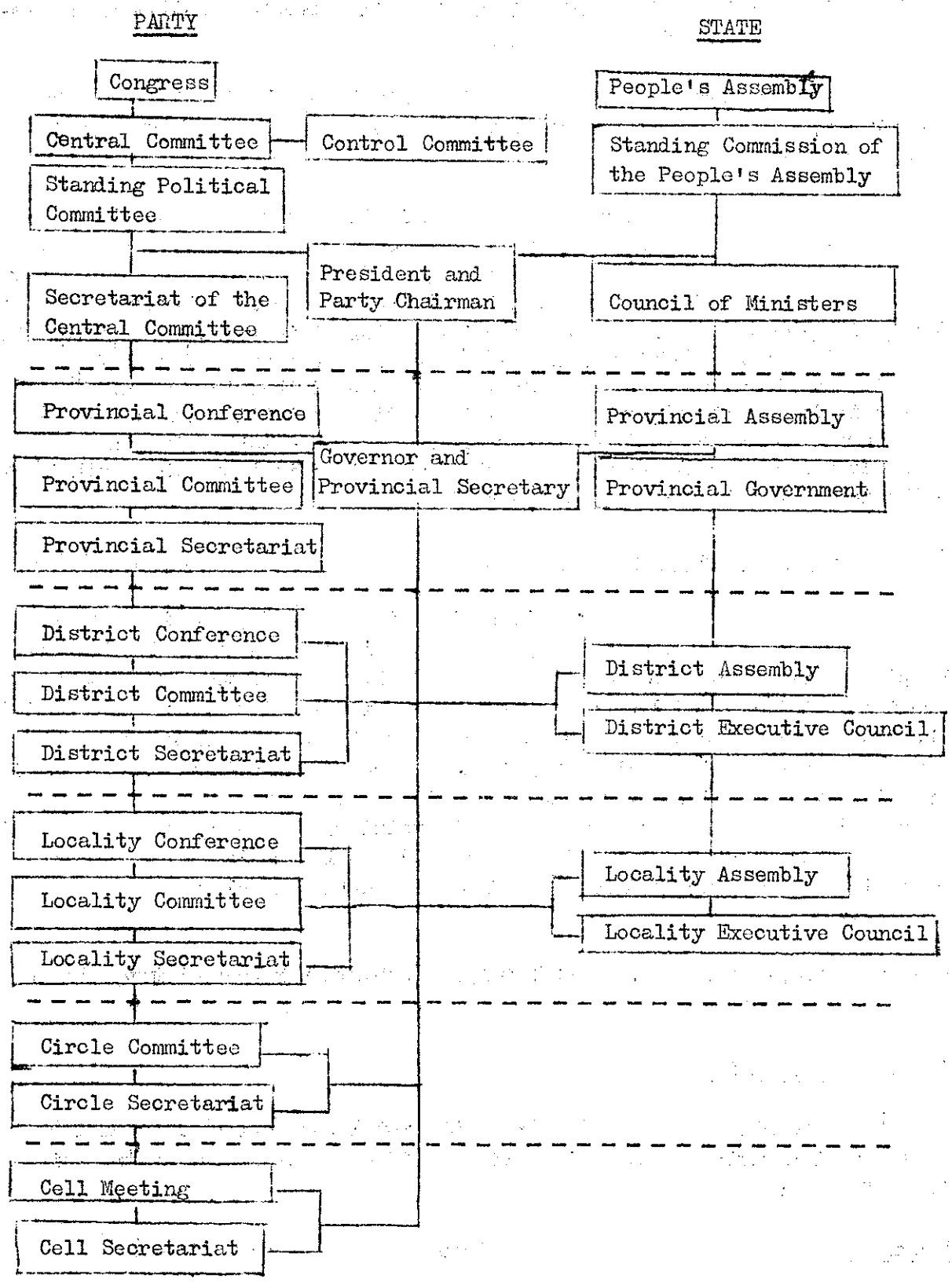
The role of the Party, FRELIMO, is to guide the State and society. FRELIMO defines the political line and supervises the state organs so as to ensure that their activities are in accordance with the interests of the people.

The highest organ of the Party is the Congress which decides on the policies and the programme of the Party and elects the Central Committee which meets every six months and consists of 67 members. The Central Committee is the highest organ in between the Congresses and it appoints the Chairman of the Party and President of the Republic as well as the ten members of the Standing Political Committee and the members of the Control Committee.

The Standing Committee is responsible for the Party in between the meetings of the Central Committee and appoints the members of the Secretariat of the Central Committee consisting of the President and

Figure 3

POLITICAL AND EXECUTIVE STRUCTURE



Secretaries responsible for Political Economy, Foreign Relations, Ideological Work and Party Organization.

The Control Committee defends the unity of the Party against infiltration, monitors the Party discipline, investigates appeals from party members and is responsible for auditing accounts.

At provincial, district and locality level the institutions are conference, committee and secretariats, and the basis of the Party are the cells and circles.

The two most important mass organizations are the Mozambican Women Organization (OMM) and the Mozambican Youth Organization (OJM) which were established in 1968 and 1977, respectively. The objectives of the OMM have been defined as involving the women in all socio-economic activities on equal terms with the men and remove any barrier to this integration. It is a very active and dynamic organization. OJM was established in 1977 when it had its first National Conference. FRELIMO recommended that the organization should include cultural, sports and leisure time activities in addition to voluntary work and education. However, progress in establishing the organization as a real mass organization which is joined by the youth in an enthusiastic way is yet to be fully realized.

1.3.3 Legal System

The legal system was nationalized in July 1975, and is based on active, popular involvement and support. The highest authority is the Supreme People's Court which monitors the uniform application of the law at lower levels, province, district and locality. At the locality level the Assembly appoints the members of the court and none have legal training. At district level some have undertaken a six-month course in law whereas at least one has professional training at provincial level. Major problems are clearly related to the extreme lack of people with professional training. However, progress is being made and the colonial system is now gradually being replaced by a system with roots in the traditional African society and FRELIMO ideology.

1.4 POPULATION, NATURAL RESOURCES AND PHYSICAL INFRASTRUCTURE AND COMMUNICATIONS

1.4.1 Population

According to the 1980 Census the total population of Mozambique is 12.13 million giving an overall density of 15.4 per km^2. The distribution is as follows:

Province	thousands	population/km^2
Niassa	514	4.0
Cabo Delgado	940	10.9

Province	thousands	population/km^2
Nampula	2 402	28.7
Zambezia	2 500	23.8
Tete	831	8.3
Manica	641	12.5
Sofala	1 065	13.5
Gaza	990	13.1
Inhambane	997	14.5
Maputo	1 246	47.3
Total	12 126	15.4

The most densely populated areas in general are the coastal areas in Maputo, Zambezia and Nampula, parts of the Zambezi River Valley and the Angonia region in Tete.

The urban population amounts to 16.2 percent of the total as compared to 9.3 percent in 1970.

Children below the age of fifteen constitute almost half of the total population (44.7 percent), whereas those of more than 60 constitute less than 4 percent.

The crude birth and death rates have been estimated at 45.7 and 17 per thousand, and the infant mortality of 140 per thousand is very high. The annual rate of growth of the population is estimated at 2.7 percent and life expectancy at birth is 46 years. The female/male ratio is approximately four to three. Some 40 percent of all deaths occur in the 0-5 age bracket.

The rural population usually living in widespread family settlements amounted to 84 percent in 1980 as compared to 91 percent in 1970 reflecting the continuing migration towards urban areas.

The vast majority of the population is of African origin, mostly Bantu, and comprises a large number of different groups speaking different languages and each having several dialects. The distribution of the different groups shows a somewhat complicated picture; but the Chopi, Changane, Tonga and Tsonga groups are in the south, the Shona (Caranga), Sena, Podzos, Chikundas and Nyungwes in the centre, Maravi, Nganja and Tao in the northwest, Makua-Lomwe in the north and Makonde and Swahili in the northeast. The Nguni are in both Tete (Angonia) and in the south. The non-indigenous population consists of Portuguese descent Europeans with groups of Asian origin.

1.4.2 Natural Resources

Mozambique is endowed with rich natural resources within most sectors of the economy, but they are generally not yet fully utilized. Although little was done prior to Independence to systematically explore mineral resources it is clear that Mozambique is quite rich in strategic minerals. However, apart from coal the minerals of the country have remained largely unexploited. The production of coal in 1976 amounted to more than 550 000 tonnes, but has since dropped to some 300 000 tonnes in 1979. The reserves appear to be concentrated in the Tete Province, and exploitation is presently also undertaken in Niassa and Manica. Natural gas has been found in Inhambane, Manica and Sofala. Iron and bauxite have also been found in Tete and Manica and titanium has mainly been found in Tete, but also in the ilmenite present in beach sand deposits. Gold has been exploited at a small scale for a long time in Manica and reserves may still be significant. Other metallic and non-metallic deposits include tin, zinc, copper, manganese, uranium, asbestos, diamonds, flourite and grafite, and there are also several rare minerals such as tourmaline and bismutite. Furthermore, recent surveys in the Rovuma River Valley seem to indicate the presence of oil. All of these deposits are, however, requiring further investigation. Finally, it may be mentioned that marble and semi-precious stones are present especially in the Zambezi-Nampula-Cabo Delgado area.

Groundwater reserves and the normally favourable rainfall pattern in combination with a complex hydrological network imply a potential for some 1-2 million hectares of irrigated agricultural land. Surface waters include Cahora Bassa lake (2 700 km^2), the Mozambican part of the Niassa lake (7 000 km^2) in addition to more than 2 000 km^2 of lakes giving a potential in-land catch of some 20 000-30 000 tonnes a year as compared to an actual catch of under 4 000 tonnes. In addition, there are excellent possibilities for shrimp trawling between Maputo and the Limpopo River and between Mambone and Angoche. Marine fishery production could also very easily be increased substantially.

The total hydro-electric potential is estimated at more than 11 000 MW and offers considerable possibilities for numerous smaller hydro-electric power stations, not to mention the huge Cahora Bassa complex in Tete with a potential of 4 000 MW.

The predominant light clay soils in the northern half and western central part of the country have good production potential with the addition of plant nutrients and adequate preservation measures. The large areas with sandy soil in the south of the country can be cultivated if irrigation is available. Saline and alluvial soils occur along major rivers and estuary zones. When adequately drained and not in contact with salty water they are very productive.

While open forest and savanna is characteristic for much of the country, dense forest occurs in limited areas in Sofala, Manica, Zambezia, Niassa and Nampula. A recent assessment of forest resources indicates that in Mozambique there are some 5 million hectares of forests of high to medium productivity and 15 million hectares with levels of productivity from

medium to low. In addition, there are some 37 million hectares with potential for combined silvo-pastoral use. Existing forests are very homogeneous with only five species making up more than 70 percent of the tree population. Total fellings are not known as most removals are for energy in rural and urban areas, but may be estimated in about 10 million m^3 per year. Present industrial fellings are targetted at approximately 400 000 m^3 a year.

Mozambique is considered one of the richest countries in Africa in regard to wildlife, both in the variety of species and in quantity of animals. National parks, such as the Gorongosa Park, reserves and zones of special protection have been created for the protection, surveying and proper utilization of wildlife resources. The number of livestock is relatively low, cattle (1.4 million), sheep and goats (0.4 million), pigs (0.2 million) and chickens (more than 25 million). Cattle are concentrated in the southern provinces of Maputo, Gaza and Inhambane (70 percent) due to tse-tse infestation and traditional practices.

1.4.3 Physical Infrastructure and Communications

In the field of railway communications three principle but not connected systems are operated by the Mozambican Railways, covering the southern, central and northern regions of the country. Focus point in the southern system is Maputo from where three main lines link the Mozambican capital with Swaziland (Goba, 74 km), South Africa (Ressano Garcia, 88 km) and Zimbabwe (Chicualacuala, 534 km).

The central system also operates three main lines: Beira-Zimbabwe (Machipanda, 317 km), Dondo-Malawi (Vila Nova, 335 km) and Dona Ana-Moatitze (254 km), serving the coal mines in Tete. In addition, there are two smaller lines and Inhaminga-Marromeu (88 km). The main lines in the north link Nacala and Lichinga (800 km) with a branch line to Malawi from Cuamba and Quelimane with Mocuba. All lines are in big need for rehabilitation of track sections and rolling equipment.

The major parts of the Mozambican roads are dirt roads with only a few main roads tarred such as Maputo-Beira. The total road network consists of 26 000 km of which 4 600 km are tarred. Yet another 1 000 km are to be completed before 1983.

The main ports are Nacala in the North, Beira in the Central region and Maputo in the South with a handling capacity of approximately 25 million tonnes annually (18.5 and 2 million tonnes respectively). Only about half the capacity is actually handled. Other ports such as Pemba, Quelimane and Angoche handle approximately 10 000 tonnes a year at present.

All provincial capitals and some district capitals have air communication. There are international connections with other African countries and Europe from Maputo and Beira airports. Two airlines, LAM 'Linhas Aereas de Moçambique' and TTA 'Transporte e Trabalho Aereo' operate in the country covering almost 40 000 km of flights a week. LAM is responsible for regular

international flights whereas TTA is operating an internal network with small passenger planes in addition to a number of agricultural services such as spraying.

Telecommunications and meteorology are among the economic infrastructure facilities that were relatively well-developed in pre-Independence days. However, the operations were heavily dependent on expatriate staff and subsequently suffered heavily when they left in large numbers. Shortages of spare parts and the decline of repair and maintenance capacity have added to the problem of lack of qualified staff.

Post and telecommunications with large parts of the country are unreliable and in addition the Mozambican radio stations are weak and can only be heard in small areas around the few cities where they are situated.

In conclusion, it may be noted, however, that on top of the above limitations the transport and communications system in general suffered heavily from the structural deformation of the country. Large investments are needed to transform the interior into the pattern existing in the coastal areas and to integrate the whole country from an infrastructural point of view. Figure 4, below, illustrates the national transport network.

1.5 ECONOMIC AND SOCIAL CONDITIONS

1.5.1 Economic Structure and Growth

Mozambique is very dependent upon agriculture and about 75-80 percent of her population derive their livelihood from the land. More than 75 percent of exports originate in agriculture. No national income statistics are published but it has been estimated that the GDP fell from more than US$ 300/capita before Independence to some US$ 150/capita in 1977. Recovery began to get underway in 1978 and GDP/capita probably reached US$ 160 in 1979.

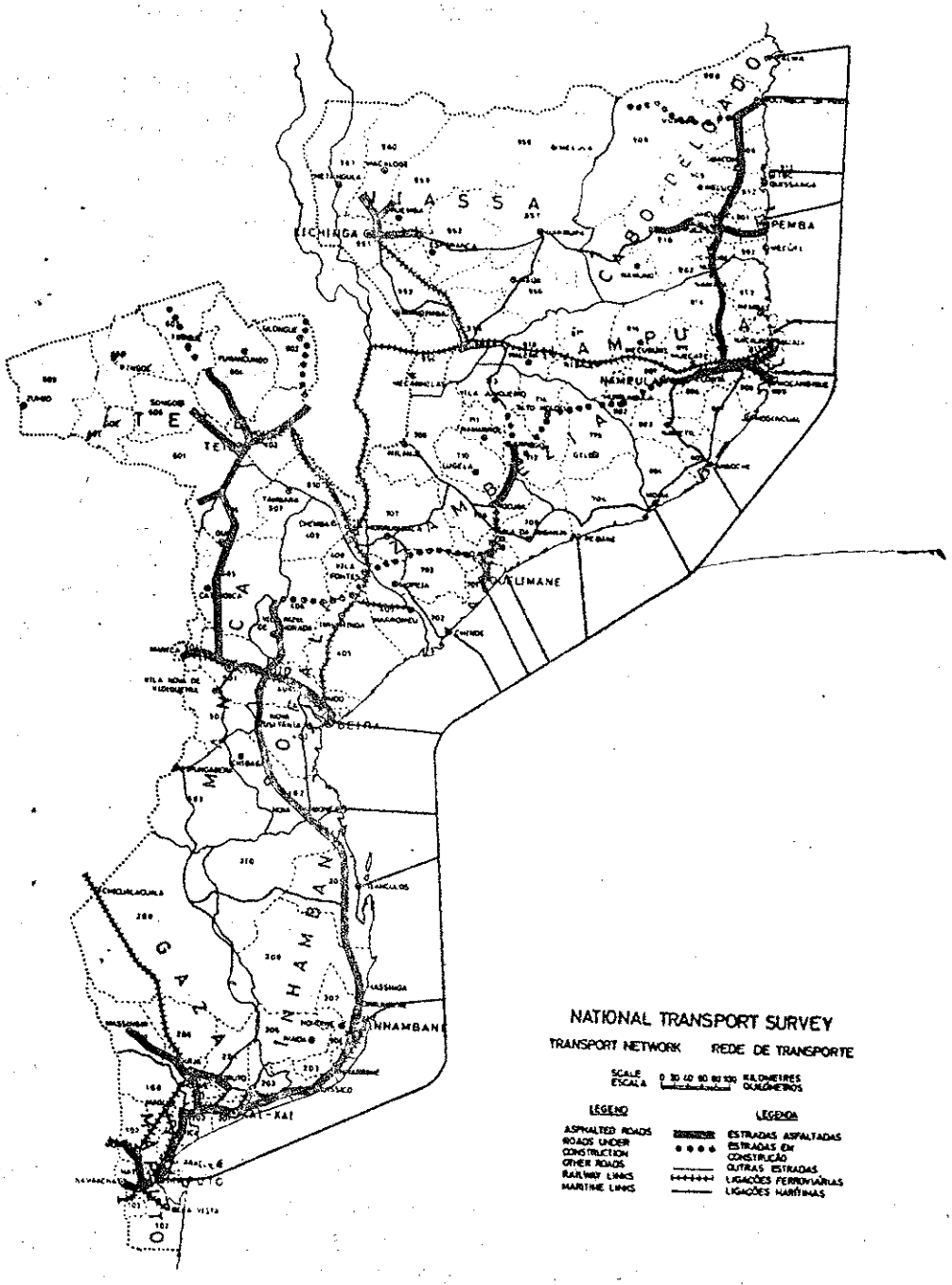
In 1973 before Independence the composition of the GDP at constant factor cost was estimated by the Economic Commission for Africa (ECA) to be as follows: Agriculture 42%, industry 15% and services 43%, and most reports indicate the composition to be agriculture 45%, industry 15% and services 40%.

As indicated no detailed analysis and data of national production are published by Government making it difficult to assess the overall growth rate or to compare present production with the 1973 level which was established at FRELIMO's Third Congress as the target to be attained by 1980. However, the following observations have been made by a number of UN Missions (UNDP, 1979, 1980 and 1981).

The economy showed signs of recovery in 1978 when despite serious difficulties in the supply of raw materials and spare parts some industrial sectors registered significant increases in production. There were also significant increases recorded in the output of marketed agricultural products. Comparing 1978 with 1977, marketing of maize nearly doubled and that of rice increased by 20 percent. Cotton production increased by 40 percent and tea production by 10 percent.

Figure 4

N.TIONAL TRANSPORT SURVEY



Source: (VIAK, 1982)

In 1979, despite the continuing problems with raw materials and spare parts and sub-utilization of the production capacity it was noted that coal production increased by more than 25 percent; the export of tea more than doubled and production of sugar increased by nearly 25 percent. Notable results were also achieved in prawn fishing and cotton export.

As regards 1980, the UN Mission only reported that industrial production expanded with a total for industry and energy of 10 percent and that problems of under-utilization of capacity were encountered.

However, when presenting the Plan for 1981 it was indicated by Government that production increased in 1980 as compared to 1979, although production targets had only been achieved in two out of five sectors, namely construction and livestock. As compared with 1978, 1980 showed a 14 percent increase in agricultural production, a 64 percent increase in livestock production and the industrial and construction sectors expanded by 14 percent and 30 percent respectively.

The Minister of Planning in early January 1982 indicated that estimates for 1981 indicate a 12 percent increase in agriculture, 10 percent increase in livestock and 23 percent increase in forestry production. Industrial production increased by 7 percent. These results according to the Minister mark significant increases as compared with the average annual estimates for 1976-80, although still insufficient as compared to the targets for the decade. In explaining the increases specific reference was made to a 5 percent increase in labour productivity.

1.5.2 External Trade

Mozambique's balance of trade has traditionally shown a large deficit. Exports amounted to some 60 percent of imports up to 1970 and to some 50 percent in the last years before Independence. From 1975 to 1978 the ratio was one-third but in 1981 the exports increased to an estimated 54 percent of imports when the overall trade deficit reached an estimated US$ 325 million.

The two largest import items are equipment (mechanical, electrical and transport) and petroleum which together account for almost half the total of some US$ 650 million in 1980. Food imports including food aid accounted for more than 15 percent and other products for the approximately 35 percent remaining.

Exports are dominated by agricultural products with the following as the major items: Cashew 17%, sugar 11%, prawns 9%, cotton 9%, tea 8% and copra 6%. Oil products account for 19% of total exports.

In 1980, the export of sugar, prawns and tea increased substantially and together with cotton they amounted to some 40 percent of total exports to which must be added the export of cashew, the most important export crop.

A major change in trade relations took place after Independence. Portugal which accounted for 18 percent of total imports and 33 percent of exports in 1974 accounted for only 5 percent and 15 percent respectively in 1979. South Africa kept its share of imports at 14 percent in 1979 and 5 percent of exports. USA supplying 4 percent of imports in that year bought 24 percent of exports mainly cashew and sugar. The EEC as a whole accounted for 19 percent of imports and 23 percent of exports, whereas the trade with the socialist countries accounted for respectively 15 percent and 9 percent in 1979. It should, however, be noted that other countries accounted for almost 43 percent of imports and 24 percent of exports including Iraq as the most important supplier as its fuel supply amounted to 17 percent of Mozambique's total imports.

Statistics on the terms of trade are not systematically compiled. However, estimates indicate that over the five-year period 1975-80 import prices increased about twice as much as export prices. This reflects the fragile, dependent state of the Mozambican economy, mainly producing and exporting agricultural products but importing industrial goods and raw materials for the existing industries.

In relation to the external trade it should be mentioned that import and export are in general handled by state enterprises specialized in foreign trade. Production enterprises hand in a list of imports needed as part of their annual plan and if approved they establish contracts with the trade enterprises. These receive an allocation of foreign currency available in the Central Bank (BM) which effectuates payments. However, it is the importer who manages the use of the allocation and issues import licenses.

Overall control is exercised by the Ministry of External Commerce and it may be noted that decentralization and delegation of import authority to the user enterprises is to be implemented for products of minor value or which are very particular. In addition, some big enterprises are already authorized to import directly and they were in 1981 responsible for some 20 percent of all imports. In relation to final products it can be noted that they are handed in to trade enterprises which are then responsible for further distribution and sale. The system is presently under study as inefficiency and lack of proper organization have been encountered.

1.5.3 Balance of Payments

As a result of the negative trade balance Mozambique continues to face a serious balance of payments situation and the overall balance amounted to an estimated deficit of some US$ 190 million in 1981, which is slightly below an after-Independence average deficit of approximately US$ 198 million per year. During the period 1976-78 the external deficit was largely covered by running down accumulated reserves (especially gold), but in 1979-80 it has been covered by increases in external indebtedness and different forms of external support.

It should be noted that the invisibles have traditionally shown a large surplus thereby counteracting the trade deficit. However, the

decrease in transit trade payments and in payments to the State for the mine labourers in South Africa have made it important to compensate with increased international assistance and commercial credits. The payments in gold at the official rate for the mine labourers which was terminated in 1978 by South Africa may have meant an annual loss of invisibles of some US$ 100 million which together with the severe losses incurred due to the application by Mozambique of the UN sanctions against Southern Rhodesia bear evidence to the constraints the country has been subjected to in its first post-Independence years. Table 1, below, gives more details on the balance of payments situation.

The total external public debt of Mozambique at the end of 1980 was approximately US$ 445 million with one of the principal items being the US$ 150 million cost of the centre-north high tension power line.

Table 1

BALANCE OF PAYMENTS
(mill. Meticais)

	1976	1977	1978	1979	1980	1981 (estimated)
Visible Trade						
Imports	13 068	16 335	16 000	18 500	23 200	25 200
Exports	4 851	4 950	5 340	8 300	11 817	13 800
Deficit	8 217	11 385	10 660	10 200	11 383	11 400
Invisibles						
Payments	3 168	2 970	2 500	2 370	3 060	4 000
Receipts	8 019	6 600	6 540	6 600	7 830	8 700
Surplus	4 851	3 630	4 040	4 230	4 770	4 700
Current Balance	-3 366	-7 755	-6 620	-5 970	-6 613	-6 700
Capital Account (net deficit)	1 715	1 650	625	900	-	-
Overall Balance	-5 081	-9 405	-7 245	-6 870	-6 613	-6 700

Note: The Government of Mozambique does not publish comprehensive balance of payments estimates. In the absence of capital account estimates the overall balance includes external assistance in kind under imports and external financial assistance under invisible receipts. In view of the significant food aid this at present leads to overstating the actual overall deficit.

Source: UN (1981)

1.5.4 Public Finance

The current State Budget for 1982 was approved by the People's Assembly in December 1981 and an overall deficit of almost US$ 80 million is projected. Expenditures and receipts are estimated at US$ 594 and 514 millions respectively amounting to increases of 16.5 percent and 14.3 percent as compared to the 1981 budget. Data on actual receipts and expenditures are not yet available. The distribution of expenditures is (in percentage) as follows: Education, health and social security 30%, defence and security 29%, economic sectors 11% and others 30%. Included under others is a fund for stabilization of prices of consumer goods and services with a total of US$ 25 million or 4 percent of total expenditures.

The expenditures on the social sector have increased substantially over the past five years and expenditures in 1982 are budgeted to be more than double those of 1977. The same accounts for defence and security. A smaller increase of some 42 percent can be registered for economic sectors whereas others have increased more than the social sectors.

It should however, be noted that current expenditures on the economic sectors in 1982 are even lower than the 1978 level because a much larger part of the financing of these sectors is now debited to the capital budget where the economic sectors have increased substantially.

Total receipts are budgeted to be almost three times the 1977 level in 1982. Changes have been introduced in the tax laws to guarantee revenue for the 1982 budget. The changes imply increased taxes on capital gains and the elimination of certain taxes to simplify the system. However, the main parts continue to be the following:

i. Taxes on earned income;
ii. Taxes on profits of private companies and capital gains;
iii. The national reconstruction tax, paid on the gross value of production by individual producers or on gross turnover by individual traders;
iv. Sales taxes on luxury goods (tobacco and alcoholic drinks).

It should be noted that profits of state enterprises appear in the budget for the first time with an estimated 18 percent of total revenue, which is expected to rise in coming years.

The complete 1982 capital budget had not yet been finalized in June 1982, but the 1981 national investment expenditures were budgeted at some US$ 1 353 million with the economic investments accounting for a major share of 82 percent. Social sector investments account for 3 percent and others for 15 percent.

In analysing the planned investments it can be noted that they have more than tripled from 1976 to 1981. However, data on actual investments are not available, so the implementation rate cannot be calculated. Although it is clear

that some investment plans have been moved forward into following years it is also clear that the real increase is substantial. The composition of planned investments in 1981 is shown in Table 2:

Table 2

NATIONAL INVESTMENT PROGRAMME, 1981

Economic Sectors	Million Meticais	Percentage
Agriculture and Fisheries	5 109	18
Accelerated Development of Limpopo Incomati Region	2 046	7
Industry and Natural Resources	7 328	26
Transport and Communication	4 668	16
Public Works and Housing	3 374	12
Internal Commerce	712	2
Others	389	1
Sub-total	23 626	82
Social Sectors		
Education	407	2
Health	313	1
Sub-total	720	3
All others	4 337	15
Total	28 683	100

Source: UNDP (1981)

The development of the Limpopo Incomati Region is a mainly agricultural investment programme wherefore agricultural investments amount to about one-fourth. It is relevant to note, however that investments in transport, public works (especially roads) and internal commerce are part of Government's programme to overcome main constraints to agricultural development.

The total investment programme is to be financed through the State capital budget (81 percent), partly through banks and internally-generated funds in the parastatal sector. The external component of the State budget amounts to 19 percent which is to be compared with the figure of almost 23 percent in 1980, underlining the need for additional foreign financial assistance.

Table 3 gives an overview of the sectoral allocation of current and investment expenditure in 1981 illustrating the above discussion and Table 4 gives further details and an indication of financing sources.

Table 3

SECTORAL ALLOCATION OF CURRENT AND INVESTMENT EXPENDITURES, 1981

Sector	Current Expenditure million meticais	%	Investment Expenditure million meticais	%	Total million meticais	%
Economic	4 491	24	23 626	82	28 117	59
Social	5 433	29	720	3	6 153	13
Other	8 743	47	4 337	15	13 080	28
Total	18 667	100	28 683	100	47 350	100

Source: Based on UN (1981)

1.5.5 Monetary Situation

At Independence the Bank of Mozambique (BM) was established as the Central Bank. It controls the money supply and the official reserves of foreign exchange and also has normal banking functions. It is, however, mainly concerned with foreign trade and commerce while the main provider of credit is the People's Development Bank (BPD). In addition there is a smaller private bank.

The provision of credit is governed by directives of the Party and the annual plan. Credit needs are estimated on the basis of production plans and investment requirements and the credit may be given at varying rates of interest depending on the capacity of the borrowing institution to service debt.

Mozambique introduced its own currency, the Metical, (plural Meticais), in 1980 and the exchange rate in July 1982 was 37 Meticais per US$.

1.5.6 Prices and Wages

In the centrally planned economy of Mozambique it is characteristic for the role of the enterprises that they are in general neither responsible for purchase of raw material, sale of final products or establishment of prices.

Table 4

CONTRIBUTION OF EXTERNAL RESOURCES TO STATE INVESTMENT PROGRAMME, 1981
(Thousands of meticais)

Sector	State investment budget	Approximate amount expected from foreign sources	Percentage expected from foreign sources	Foreign Sources (percentage expected from each in brackets)
Economic Sector				
Agriculture	4 363 740	806 419	18.48	AfDB and SIDA (9.32); MONAP[a] (8); UNDP (1.16)
Development Limpopo/Incomati	2 046 345	337 033	16.47	USSR (6.03); Bulgaria (5.46); Italy (4.98)
Industry and enery	6 127 888	2 173 562	35.47	France, Italy and Sweden (30.87); United Kingdom (2.54); EEC (2.06)
Coal and hydrocarbons	772 256	16 604	2.15	SIDA (2.15)
Transport and communications	1 030 000	68 701	6.67	Netherlands (2.91); Norway (2.21); Sweden (1.55)
Public works and housing	3 374 000	491 592	14.57	AfDB (10.55); Neth'lds (3.58); UNICEF (0.44)
Internal Trade	586 518	330 913	56.42	AfDB (40.91); FAO (11.42); MONAP (4.09)
Others	127 000	-	-	-
Social Sectors				
Education	407 000	121 774	29.92	USSR (6.85); SIDA (3.78); Others (19.29)
Health	313 000	78 344	25.03	UNDP (11.54); Terre des Hommes (7.98) Netherlands (5.51)
All other	4 100 953	1 640	0.04	Netherlands (0.04)
Total	23 248 700	4 426 582[b]	19.04	

a/ Mozambique Nordic Agricultural Programme
b/ US$ 126.5 million
Source: UN (1981)

The import-export system has already been discussed in Section 1.5.2; and will therefore not be discussed further. Responsibility for decisions on the level of prices is vested in a National Commission for Salaries and Wages chaired by the Minister of Finance. The immediate responsibility for preparing price proposals lies with the relevant Ministries. As regards wages to be paid these are based on approval from the Secretariat of State for Labour and a Wage Decree from 1980, which implied an increase in minimum wages and a decrease in higher salaries. In addition, the Decree indicates that following transfers to new employment relatively low salaries are to be paid.

In general, it may be observed that salary increases are to correspond with increases in labour productivity. This may be seen on the background of a more than 250 percent increase between 1973 and 1979 in the wage level and consequent inflationary pressures resulting in buyers queues, speculation, black market dealings etc. as prices are controlled.

Prices of basic products are in general low and subsidized. For imported rice for instance the subsidy was equivalent to 75 percent and for wheat 49.4 percent in 1980. The total subsidy for the following products: Rice, fish, maize, wheat, potatoes, milk, sugar, oils and soaps amounted to about US$ 60 million. Total subsidies of more than US$ 110 million were given to basic products.

1.5.7 Employment

No systematic data on the size and pattern of current employment are available and the detailed results of the 1980 Census are still awaited. However, it is possible to note that before Independence an unusually high percentage of the labour force was employed as wage earning labour. Estimates as high as 20-30 percent amounting to a total of some 800 000 for 1970, including the Portuguese, have been indicated. For 1980 it has been estimated (by FAO) that the total labour force amounts to some 3.9 million with about 64 percent in the agricultural sector. The daily journal 'Noticiás' in early January 1982 published an estimate of total wage labour force of more than 370 000; but it is not clear whether this includes migrant labourers.

Unemployment was high already before Independence as Mozambique was used as a labour reserve for neighbouring South Africa and Southern Rhodesia. However, the drastic fall in employment of mine labour (from more than 100 000 before Independence to only 35 000 in 1976-77), the almost complete stop in migration of plantation labour to Southern Rhodesia, following the application of UN Sanctions, the crisis in the export-oriented cash crop production in the northern provinces and the fall of employment in construction, communications, and transport and industrial sectors (estimated at 40 percent by a UN Mission) worsened the situation.

The above developments combined with the decrease in agricultural production led to an increased influx of labourers, generally men, to the towns,

in search of wage employment. Their wives and families often followed afterwards as they could not subsist on the farms in view of the drying out transfers of money from the wage incomes. The corresponding drop in the part of the labour force in agriculture from 69 percent in 1975 to 64 percent in 1980 is a reflection thereof.

The Government is, however, actively pursuing a policy of reversing the flow of people from the country to the towns.

1.5.8 Education

Before 1964, all teaching of Africans was according to the law carried out by missionaries. They did not, however, receive sufficient financial support to attract qualified teachers. A reform in 1965 removed racial discrimination and made primary education compulsory for all children between six and 12 years of age. In addition, the State took greater responsibility for schools. However, not much changed. The number of students enrolled in some 5 281 schools increased only slightly to some 675 000 out of a school-age population of about 5 million of which about two-thirds did not pass the first grade.

At Independence Mozambique was therefore left with a literacy rate of only 5 percent and the individuals with University training were only 40. The number of schools was grossly insufficient and the curricula inappropriate for the needs of the country.

All schools were nationalized immediately after Independence. Existing textbooks were withdrawn, curricula changed and a new educational system was planned to be introduced in 1983.

The present schooling system consists of preschool, one year; primary school, four years; lower secondary school, three years; higher secondary school, three years; high school, two years; and University, three to six years. After primary school students may start in agricultural, industrial or commercial vocational schools with three levels: Elementary, three years; basic, three years; corresponding to lower and higher secondary school, and institute level corresponding to high school. Teachers for primary school are educated at higher secondary level and teachers for secondary school at high school level.

The number of primary school students doubled to 1.4 million before 1980 and in the secondary schools increased to 5 730. The number of teachers increased in the primary schools from 11 000 to 17 000 and in the secondary schools from 1 800 to 2 067. The number of secondary schools increased from 33 to 104.

The number of vocational schools increased from 27 to 37 whereas both the number of students and teachers fell from 15 000 and 700 to 12 704 and 680, respectively. This reflects the general low level of education and will change as more students reach a higher general level.

At University level there are faculties for agriculture and forestry, veterinary medicine, economics, law, liberal arts, engineering, medicine, mathematics and marxism-leninism giving priority to those fields of direct relevance to the country's development needs. The number of students enrolled amounts to more than 1 800, but most of these work part time in the State apparatus.

In addition to the above progress, literacy campaigns initiated before Independence in the areas occupied by FRELIMO forces in the north have been continued with further campaigns and adult education programmes.

The new national education system to be introduced in 1983 is an integrated system with the following sub-systems: General education, vocational training, adult education, teacher training and higher education. This system will, furthermore, have a four-tier structure: Primary, secondary, intermediate and higher.

Seven years of compulsory schooling is foreseen, and the overriding objectives of the system are to establish a better balance between theory and practice and to increase the students' understanding of, and the applicability of acquired knowledge within the Mozambican reality.

1.5.9 Health and Nutrition

The colonial health system was mainly directed towards meeting the curative needs of the white population in towns. Preventive medicine hardly existed and the allocation of some 3 percent of the overall budget to health was minimal. A year before Independence there were about 550 doctors, but at Independence they were only 85, equivalent to approximately one doctor per 100 000 people.

The above situation left a legacy with a very low standard of health with numerous communicable diseases, a population suffering from nutritional deficiencies and an almost complete lack of health statistics about the mass of the population. The implications are a crude death rate of approximately 17 per thousand, a life expectancy at birth of 46 years and an infant mortality rate of 140 per thousand, one of the highest in Africa.

Daily calorie consumption has been estimated at 1 920 calories in 1980, equivalent to only some 81.5 percent of the requirement. Protein and fat probably amount to only approximately 40 and 30 grammes respectively with low percentages (11-18 percent) of animal origin.

No general surveys are available of food consumption patterns but they vary in different ethnic groups and geographical areas. Roots and tubers (especially cassava), maize, millet, sorghum, sugar, oil and fat make up for more than 80 percent of the total calorie supply, with cassava and maize overly important. Rice is becoming increasingly important. Immediately after Independence private clinics and mission hospitals were nationalized. The allocation to health was drastically increased to 10 percent of total Government expenditure,

and a new health programme was designed on the basis of the experience in the liberated areas. Three basic principles were defined:

i. Health services are to be seen as an integrated part of a whole package of activities to improve the overall level of health;

ii. Health services must be available to everybody;

iii. Emphasis is to be on prevention rather than curative medicine.

In accordance with these principles new structures have been introduced at four operational levels. At the first level, health centres are to provide basic medical assistance as well as health education and to mobilize people for health promotion. At the second level, rural hospitals are to provide some essential services in surgery, pediatry and gynaecology as well as in general medicine. At the higher third and fourth levels, provisional and central hospitals are to perform functions requiring specialized personnel and more sophisticated equipment. The fact that all medical treatment now costs only a nominal 7.5 Meticais (i.e. 20 cents) to the patient is worth noticing.

Clearly, the establishment of a fully developed rural health system will not be realized in the short term, and pending this, mass preventive campaigns are undertaken. The National Vaccination Campaign was launched in 1976 in a two and a half year programme, carried out by three brigades each in a position to carry out 6 000 injections per day. The programme had reached 96 percent of the target groups in September 1978 and 10.9 million had been vaccinated against smallpox, 5.1 million against tuberculosis, 2.0 million against tetanus and 1.2 million against measles.

Despite the success of this Campaign major problems remain, and it may be mentioned for instance that cholera broke out in 1980 in several places in the country.

As regards future plans the network of health units will be enlarged and the number and level of training of staff will be expanded. The first five Mozambican medical doctors graduated since Independence were scheduled to complete their training in July 1982. In addition, it may be mentioned that, the following programmes have been identified as central in pursuing the goals of health for all by the year 2000:

i. The Ministry of Health will collaborate with the Ministry of Agriculture to ensure a progressive rise in average calorie intake of the population to 2 350 with a protein component of some 11.5 percent;

ii. Care of pregnant women and all women of child bearing age as well as of children in the 0-5 age bracket will be pursued with a view to a progressive decline in the infant mortality rate. In addition, the National Programme for Protection and Support of Childhood will continue, and it is planned to extend the present coverage from 0.6 percent of children aged 0-5 years to 5 percent. Simultaneously, training of personnel to man infant centres for women at work will be intensified;

iii. While available records for 1980 show the following coverage for specific vaccines: polio 35%, tetanus 40%, tuberculosis and measles 40%, it is intended to raise the coverage to 70%, 80% and 80% respectively by the end of the 1981-90 decade;

iv. Increasing attention will be given to improving epidemiological surveillance in coordination with health laboratory services so as to establish a sound basis for disease control.

In conslusion, it may be noted that despite the lack of qualified personnel significant advances are being realized. A basis for future developments has been established through the provision of free services, upgrading of preventive medicine and the establishment of a new structure.

1.5.10 Women's Conditions

According to the Constitution Mozambican men and women have the same political, economic, social and cultural rights and obligations. It should, however, be noted that a woman loses her citizenship if she marries a foreigner, which does not apply to a man who marries a foreign woman.

In practice the rights of the woman are still rather limited. Without formalities the husband can abandon his wife if she cannot bear children, early marriages and frequent childbirths are common.

Furthermore, the women's participation in the economically active population is only approximately 25 percent and out of these 94 percent are to be found in agriculture.

Yet, a programme of action has been formulated and adopted by the Organization of Mozambican Women (OMM) to abolish initiation rites, bride payments, child marriages and polygamy, and it is an objective of the authorities that women participate actively in the collective sector of the agricultural production in the communal villages as well as in the state enterprises.

The OMM was created 1972 as a women's association of FRELIMO and it can be noted that the struggle for women's liberation started side by side with the struggle for Independence. During the armed struggle against the colonial rule only a small number of women participated directly as soldiers but the women provided the soldiers with food and took care of those injured. Furthermore, it was very common that the women transported arms as they were able to disguise them better than the men.

The attempts of the managers of the state farms to employ women have not been very successful because of the resistence from the husbands who normally insist that the wives remain at home working on the family plot. Women working at the state enterprises and other production units are mostly seasonal workers. Normally, a woman has to request the authorization of her husband to work outside the house and she gives him the proceeds from her work.

Mozambique supports the Movement of Non-aligned Countries and is open for economic relations of joint benefit with all nations. The country is an active member of the United Nations and the Organization of African Unity (OAU). Support is given to liberation movements such as FRETELIN, Polisario and the African National Congress (ANC) as was the case with ZANU during the liberation war in Zimbabwe.

1.6.2 Southern Africa

Mozambique being among the Frontline States supports the liberation movements of SWAPO in Namibia and ANC in South Africa. However, it should be noted that the relations with South Africa are complicated. On the one hand, the country is thoroughly in disagreement with apartheid policies and is in favour of majority rule in South Africa. On the other hand, economic relations between the two countries are still very important.

During colonial times Mozambique was in the South African dominated economic system; dependent on migrant labour, transit trade and large investments as for instance the big Cahora Bassa dam in Tete, which is of crucial importance to the country's future supply of electricity. It is the explicit policy of Mozambique to limit its dependence on South Africa, and progress in this regard has been realized over the past few years. However, economic relations and dependence still exist, and it is the declared policy of Mozambique to keep peaceful relations with South Africa, despite the increase in direct confrontations after Zimbabwe's Independence exemplified by the South African support to guerilla activities in Mozambique and commando raids including one against ANC-refugees in a Maputo suburb in January 1981.

Following the Independence of Zimbabwe and the resumption of normal economic relations with this country the general situation in the region and for Mozambique have changed. The Lusaka meeting in April 1980 with participants from Angola, Botswana, Lesotho, Malawi, Mozambique, Swaziland, Tanzania, Zambia and Zimbabwe decided to initiate an ambitious programme of regional cooperation constituting the Southern Africa Development Coordination Conference (SADCC) to reduce the dependence on South Africa.

SADCC proceeded to map out areas which could benefit from regional cooperation. The areas included transport and communications with the highest priority and under the direct responsibility of Mozambique, where a Transport and Communication Commission has been established. Other areas included food security, agricultural research and animal health.

The Second Southern Africa Development Coordination Conference (SADCC II) took place in Maputo in November 1980 and took the form of a donor conference with participation of international financing agencies and industrial and oil-producing states. A US$ 650 million programme consisting of a great variety of project activities was tentatively agreed upon with a large part to be deployed in Mozambique. New projects have since been added as they were identified and formulated.

Since the Maputo meeting the institutional framework of SADCC has been ratified and a secretariat is to be fully established in Botswana in the course of 1982. The SADCC III Conference took place in Blantyre, Malawi in

November 1981. At this meeting more areas for cooperation were included, and further discussions took place with donors, especially in the transport and communications sector.

Economic cooperation in Africa does not have a history of success, but nonetheless two aspects give hope for SADCC success. Firstly, objectives have been kept realistic limiting themselves to identifying projects and programmes of benefit to all participants rather than seeking quick fundamental integration of economic policies through e.g. preferential trade agreements.

Secondly, the member states have a strong political commitment to SADCC, growing out of the political collaboration of the front line states, and a jointly shared repugnance of the minority rule and institutionalized racism in South Africa.

Up to July 1982 some US$ 690 million worth of foreign assistance had been committed, with 37 percent of the original transport and communication projects financed. Serious gaps therefore continue to exist in relation to the projects on railway and port systems centered on Maputo and Beira. The number of transport and communication projects is now 106.

The next meeting of SADCC is scheduled to be held in Lesotho in January 1983, and it is to be hoped that further financial support will come forward.

1.7 NATIONAL DEVELOPMENT

1.7.1 Development Potential

If one just considers natural resources Mozambique has ample development potential. There is obvious scope for expansion of the cultivated areas as well as for more intensive production on currently utilized land. The potential for irrigated land is impressive. The hydroelectric potential is enormous and fishery as well as forestry resources are excellent, especially if adequate conservation measures are observed. Mineral resources and soils, although not yet fully explored, are believed to be of significant quality and potential.

Furthermore, the considerable commitment and will of the policy makers so often lacking in other countries may in Mozambique be considered one of its potentials. It has often been stressed that lack of political will may add yet another constraint to an already difficult development process. Such is not the case in Mozambique. However, as will be discussed in Section 1.7.3, below, despite its favourable potentials Mozambique also

faces enormous constraints in realizing its basic development objectives and plans.

1.7.2 Objectives and Priorities

Basic development objectives in the People's Republic of Mozambique are defined in the Article 4 of the Constitution and include:

i. The elimination of the oppressive and exploitative colonial and traditional structure and the change of the mentality which is correlated with these;

ii. The extension and consolidation of the People's democratic power;

iii. The establishment of an independent economy and promotion of socio-cultural progress;

iv. The defense and consolidation of independence and national unity;

v. The establishment of a People's democracy and the construction of the material and ideological base for a socialist society;

vi. The establishment and development of friendly relations and cooperation with other peoples and states;

vii. The continuation of the struggle against colonialism and imperialism.

Clearly, the attainment of these objectives imply a radical change in the socio-economic structure of the country foreseen to take place in two subsequent phases: First, the stage of Popular Democracy, and second, the stage of Socialist Revolution.

In the present first stage of this development, emphasis is given to consolidation of the ideological, material and technical foundations for the second stage. More specifically, the priority objectives in the short term are to:

i. Improve the welfare of the People;
ii. Strengthen the economic basis of the country;
iii. Strengthen the defensive capacity of the country;
iv. Consolidate national unity.

Emphasis is being put on increased exports (especially of cashew, shrimp, cotton, sugar, tea and wood), production and commercialization of basic commodities (rice, maize, fish, meat, oils and soaps, matches, poplin, cloth, hoes and machettes) and on the implementation of strategic investment projects and programmes (including investments directly related to the programmes and projects mentioned in Section 1.7.4 below.

The priorities among the above three objectives are in general not clearly spelled out, but they are of course closely interrelated.

However, it has recently been stated by FRELIMO's Secretary for Ideological Work when presenting an analysis of the actual situation of Mozambique (CEDIMO, 1982) that between the alternatives of importing more food, using more foreign currency or making more efforts to realize the necessary investments to solve the future problems, Government and Party opt for the latter. That is, opt for 'sowing to be able to reap later'.

1.7.3 Constraints

Many of the basic constraints to developing Mozambique and achieve the above objectives are related to the structural deformation of the economy which took place in colonial times reflecting an economy organized mainly to serve the needs of South Africa and Southern Rhodesia in addition to enabling the colonial power to extract the maximum surplus.

This situation implied that economic links between sectors and regions within the country are lacking, basic communications are either lacking or as in the case of main road and rail lines running east-west were designed to connect the hinterland with the ports on the coast neglecting the north-south communication within the country.

Export and luxury production facilities were mainly established in the south, often based on imported raw materials and with no adjacent internal growth effects. No internal market or marketing system which could have fuelled an independent development was established, and the population in the rural areas continued to be extremely dispersed with little or no education and training facilities and with only a minority of some 10 percent able to speak Portuguese.

In addition to the structural deformation and insufficient social, economic and technological infrastructure exogenous factors like the exodus of 200 000 Portuguese left the country practically without administrators and skilled workers in production and service activities. Furthermore, the continued instability and tension in the region with sabotage of strategic communications and production facilities pose yet another set of constraints to which can be added the continuing occurence of major natural disasters.

Finally, it needs to be stressed that so far internal capital accumulation has not taken place. This implies that the actual financing of development programmes and projects which to a large extent require foreign exchange pose serious constraints to short and long term development.

1.7.4 Strategy and Policies

The basic strategy and policies to achieve the objectives mentioned in Section 1.7.2 were defined during FRELIMO's Third Congress in February 1977. The complete and thorough change of the socio-economic and political structure is to be realized in two stages: The stage of popular democracy and the socialist revolution.

The global strategy in the stage of popular democracy is based on two basic thoses: Agriculture as the base and industry as the dynamic and decisive factor for socio-economic development. In the stage of socialist revolution heavy industry will be further developed to enhance economic growth and establish the material base for the socialist society.

Four key programmes make up the basic content of the strategy for the 1981-90 decade, which has been defined as the 'Decade for the Victory over Underdevelopment'. These programmes are:

i. Cooperativization of the countryside;
ii. Creation and Development of Heavy Industry;
iii. Development of a State Agricultural Sector;
iv. Development of Work Force and Education.

The above programmes are to be developed and implemented within the framework and on the basis of a centrally planned economy. The state control of the economy is ensured directly through production and investment plans as well as indirectly through measures such as control over prices, wages and transactions in foreign currency.

It is through state control of the economy and their productive sectors that the basis for a socialist society with new relations of production and ways of life is to be established. It is in this context that 'socialization of the country-side' with the establishment of communal villages and cooperatives - radically changing the present dispersed way of living of the majority of the people, and transforming the peasant sector - has been identified as the main objective of the decade.

It follows that priority in allocation of investments is to be given to projects related to the above four programmes, including a number of agro-industrial and forestry complexes, thereby increasing production and exports of strategic and basic products strengthening the economic base of the country. In addition, the following investments under implementation or in the pipeline have been identified in specific as important:

i. Zambeze bridge, central-northeast road, Angonia road and the Tsangane road;
ii. Housing programme;
iii. Limpopo irrigation system, Corumana dam, Pequenos Libombos dam;
iv. High tension electricity lines central-north and Maputo-Lionde-Xai-Xai and extension of the Pemba central;
v. Reparation of the Zambeze and Pungwe bridges;
vi. Textile factories TEXMANTA (in Pemba) and Mocuba (in Zambezia);
vii. Renovation of Dondo/Moatize rail link;

viii. Steel Plant CIFEL in Maputo;

ix. Water supply projects;

x. Conservation factory at Beira;

xi. Refrigeration plant at Quelimane.

The agricultural development strategy and policies are further discussed in Chapter 4; but on the basis of the above it is clear that an ambitious development strategy has been formulated. Its implementation is in the words of the Head of State to be considered the war against misery and the way of materializing the visions of the People.

1.7.5 National Planning

Plans for the establishment of a national planning system in Mozambique only dates back to the Third Congress of FRELIMO in February 1977. As a consequence of the Congress a National Planning Commission (CNP) with Ministerial rank was established in May 1978 and this Commission has since been responsible for overall coordination.

The planning process is carried out as a continuous process where implementation, adjustment of present programmes and their control are intimately linked with the preparation of new plans and targets. A ten-year Perspective Plan (PPI) was approved by the People's Assembly in December 1981. The Plan which is not publically available sets out the general strategy for a radical socio-economic transformation of society. It defines the policies to be followed and the targets to be achieved in the course of the decade.

The PPI will be fragmented into annual and pluri-annual plans and socalled integrated programmes which are obligatory and have the status of laws. At present it appears that the PPI for the 1981-90 decade will be covered by a three-year plan 1983-85, and a five-year plan 1986-90, along with annual plans (PECs) and integrated programmes for export. So far, the actual work has, however, been based on the annual plans.

The basic stages of the annual planning process start with general guidelines based on the PPI from CNP setting the rate of growth, distribution of foreign currency between Ministries and the investment programme in addition to the more general tasks to be solved. On this basis the individual ministries may start preparing their plans including production, transport, export, import, supplies, investments and construction, work force, including social programmes and financing. These proposals are then analyzed and discussed at decentralized and central levels until a counter-proposal is submitted to CNP. Here the final proposal is prepared including distinctions per sector and province and material balances are established.

The proposal is cleared by the Council of Ministers and finally approved by the People's Assembly and then has the status of a law. This takes into account all technical and financial assistance programmes to the extent possible.

In general, it may be said that the planning system is yet to be further refined and there has been a number of discussions on subjects such as the degree of centralization in plan preparation. However, it is clear that despite difficulties a planning system has been introduced which gives central levels a means of steering and influencing production and economic development in general. In the light of Government policies on people's participation in decision-making it can be expected that in spite of the difficulties involved the necessary mechanisms will be devised as soon as possible to extend planning activities including a certain degree of participation of farmers' groups at the grassroot level.

1.7.6 Conclusions

Many events important both to the overall development strategy discussed above and to the agricultural sector strategy to be discussed in Chapter 4 transpired in the seven years since Independence.

The events are associated with the evident objective of achieving growth with equity and meeting basic needs in addition to redistribution of income - although quantitative evidence has been lacking. The following events can be mentioned:

i. Nationalization of lands, housing, banks, industry and public services including in particular medical care and education;

ii. Literacy campaigns and massive education programmes;

iii. Top priority given to agriculture followed by industry as the key element;

iv. Leveling of wages is in process while increases in prices of consumer goods are checked as far as possible;

v. Rationing of basic goods has been introduced and consumers' cooperatives developed;

vi. Socialization of the rural areas has been pursued with increasing impetus with agricultural cooperatives as its main base;

vii. Mechanisms to organize delivery of inputs and services to agricultural producers are being developed.

Parallel to the above events Government actions are also focusing on means to reduce economic dependence on South Africa, promoting self reliance from farmers to national levels and collective self reliance at the regional level through SADCC.

In the pursuance of the strategies outlined above increased investments have been emphasised rather than increasing aggregate consumption, although meeting basic needs is pursued. Production and productivity have

often suffered due to the disruption of the former infrastructure. The main reasons for this are associated with the lack of managers, technicians, skilled labour and instructors in all walks of life.

The social policy of Government has created a growing gap between total demand in the economy and the availability of goods for sale. This is also associated with the still imperfect marketing mechanisms introduced by the Government following the departure of the Portuguese traders. Workers and producers are losing interest in earning money and revert to subsistence agriculture and barter in increasing numbers. This has led the Ministry of Internal Commerce to concentrate efforts on rural marketing and food security schemes.

A parallel market for consumer goods in addition to distribution through the rationing system and consumer cooperatives has been established by the Government in towns where black marketing is severely punished except in those areas presently affected by protracted droughts where greater mobility of food stuffs is tolerated.

With the Independence of Zimbabwe, achieved with costly support of Mozambique, the Government's development efforts took renewed impetus but peace was not to last long as the country found itself involved in a guerilla war supported by South Africa and the upsurge of bandits and rebels, former members of the Portuguese, Rhodesian and Mozambican armed forces.

Nevertheless, Mozambique is frantically implementing a ten-year development plan aiming at substantial self reliance of its economy by 1990.

Meanwhile the country is going through a transitional period characterized by initial planning and organizational inefficiencies on the one hand and strenuous efforts to improve performance through newly established mechanisms and institutions coupled with enhanced participation of the population, whose employment opportunities as well as cultural level and technical skills, are being upgraded as a sine qua non condition to achieving the development objectives of the country.

2. AGRARIAN INFORMATION

2.2 MOZAMBICAN AGRICULTURE BEFORE AND AFTER INDEPENDENCE

2.1.1 Economic Importance

As in most Third World countries agriculture is by far the largest economic activity. At Independence some 90 percent of the population derived their livelihood from the land and at present it is probably as much as 75-80 percent. Agriculture together with agro-industries generated as much as 40 percent of GDP and 80 percent of exports before Independence, and up to 75 percent of the labour force was employed in the sector. However, despite this recognized importance it should also be noted that Mozambique did have a relatively high degree of industrialization and a large service sector as compared with other developing countries. It has been observed that while Mozambique accounted for about 2 percent of the population of Africa, it accounted for about 4 percent of industrial production. However, despite the above recognized importance of the agricultural sector in the overall economy the agricultural sector does not manage (a) to supply the urban, non-food producing population with its basic food requirements, and (b) to keep the rural population at an adequate nutritional level. In addition, its contribution to export revenue has been declining.

2.1.2 Land Tenure

Two different types of land tenure systems can be identified in the pre-Independence period. The first was based on the traditional African system whereas the other followed the European traditions and legal rights. Both were, however, under Portuguese control. The traditional African system was based on the principle of holding common land, the right of usufruct being allocated over part of the land for the duration of the cropping season. The chiefs who played a key role in this system originally exercised their control according to traditional authority and beliefs. On the rich soils along the large river valleys there was some stability with fixed farm borders, but traditional agriculture did and still does imply in general shifting cultivation with farmers moving frequently to new fields of one or two hectares in size cleared by slash and burning.

The traditional farmers usually reside in habitations built in small clusters occupied by a group of relatives and located close to the cultivated area.

After Independence all land was nationalized and a new Land Act was passed by the People's Assembly in June 1979.

Land used for family agriculture is free and the same accounts for land used by State entities for housing and by cooperatives and communal villages. Family plots can still be passed down from parents to children, but the ultimate ownership remains with the State. The State may therefore move people if the land is to be used for other purposes; but it has an obligation to resettle the people and compensate any losses.

Private firms may also use land, but could be asked to pay rent and the land will only be ceded to them for a specific purpose which cannot be altered.

2.1.3 Structure of Agricultural Sector

The following two sections review the structure of the agricultural sector in Mozambique. For clarity sake a distinction is made of the periods before and after Independence in separate sections although the subjects covered by both sections are closely interrelated.

2.1.3.1 Before Independence

The agricultural sector was and continues to be described as dualistic with a 'traditional sector' mainly producing food crops especially maize, cassava, sorghum, rice, groundnuts and beans. It was and still is composed of small farmers practicing mostly subsistence agriculture through shifting cultivation. Yet it was estimated that on average each traditional farmer produced a marketable surplus representing 20 percent of his total production. Thus the traditional sector contributed about one-third of the total commercialized agricultural production in Mozambique. The total production of the traditional sector represented about 70 percent of the overall agricultural production of the country. In fact some 90 percent of the production of cashew and 67 percent of the production of cotton which together accounted for up to 40 percent of total exports originated in the traditional sector. Of total export receipts about 45 percent represented traditional sector produce.

According to Government strategy the traditional small farmer sector should gradually give way mainly to cooperatives linked to communal villages. This implies the gradual transformation of a sector characterized by - but by no means inherent in the nature of the peasants - isolation, technological backwardness, low productivity and poverty caused by the general underdevelopment of the economy, lack of opportunities, incentives and means.

The 'modern sector' was in the hands of foreigners, mainly Portuguese who developed it displacing the traditional (African) farmers from the best lands. Two main categories are distinguished: the large 'plantations' and the 'settlers' farms'.

In the modern sector employing some 300 000 people (70 000 permanent and 230 000 seasonally), the land held under legal rights was considerably above that cropped. Of the 2.5 million hectares which were held under this land tenure system only some 515 000 hectares were cultivated as follows: annual crops 40%, permanent crops 40%, fallow 20%. The remaining 2 million hectares were either extensively grazed or under bush cover.

The modern sector consisted of some 4 626 settler farms and plantations farms with an average size of approximately 540 hectares. This average does not reflect, however, that the plantations were overwhelmingly important including about a dozen which were extremely large. About 75 percent of the modern sector land was held in concessions of over 1 000 hectares whereas the size of most of the settler farms on the other hand was in the range of 20 to 50 hectares. The settler farmers generally settled in the south of the country, especially in the Limpopo Valley whereas the plantations dominated in the central region leaving the north to be dominated by traditional African farmers. The settler farmers and the plantations each contributed with about one-third of total marketed production and 30 percent of total agricultural production originated in this sector.

In addition to sectoral disparities, marked regional differences existed which is clear from Table 5 below which also confirms the points made above.

The table clearly demonstrates that despite the fact that subsistence farming dominated with 55 percent of the total production, commercial production with 45 percent was also important. The North and Central regions were approximately equal in importance whereas the South was much less important. However, in terms of structure the Central and Southern regions are alike as production for subsistence and production for the market account for close to 50 percent each in both regions. In the South this is, as mentioned, primarily due to settler farmers which account for two-thirds. The plantations were of major importance in the Centre although still only accounting for about 57 percent of total commercial production in the region. In the North commercial production was contrary to the South and Centre, much less important, and the small farmers accounted for 65 percent of total commercial production in that region.

The bulk of the commercial production of cotton, cashew, groundnuts, tea, copra and significant portions of other crops originated in the North.

Regarding the distribution between plantations and settler farmers, it can be noted that plantations were especially producing sugar, sisal, tea, copra and sunflower, whereas the bulk of modern sector production of rice, tobacco, cotton, potatoes, wheat, citrus, vegetables and livestock came from the settler farmers.

Table 5

SECTORAL AND REGIONAL DISTRIBUTION OF AGRICULTURAL PRODUCTION BEFORE INDEPENDENCE
(In percentages of total)

Percentage	North	Central	South	Total
Subsistence	24.0	22.4	8.3	54.7
Commercial	16.0	20.6	8.7	45.3
of which:				
Small Farmers	10.4	3.9	1.8	16.1
Plantations	0.8	11.7	0.3	12.8
Settlers	4.8	5.0	6.6	16.4
Total Share	40.0	43.0	17.0	100.0

Note: North is Cabo Delgado, Niassa and Nampula, Central is Zambezia, Manica, Sofala and Tete, and South is Inhambane, Gaza and Maputo.

Source: Table is based on data in Wuyths (1978).

Table 6 below indicates the importance of the different crops and their distribution between traditional and modern sectors.

Although the modern sector held only about 10 percent of the area under seasonal crops it was important in supplying urban food needs. For instance, about 90 percent of the rice consumed by the urban population was produced in the modern sector, and, as already mentioned, about two-thirds of the total marketed production originated in the sector.

2.1.3.2 After Independence

After Independence the rural institutional structure has changed dramatically. However, some private modern farms do continue to exist and to be managed by the relatively small number of Portuguese farmers who stayed in the country. In addition, a large number of state farms came into existence in the modern sector. The total number of state farms is now probably around 50.

In today's peasant agriculture in Mozambique the basic elements are communal villages, cooperatives and family farms.

Table 6

NATIONAL STRUCTURE OF AGRICULTURAL PRODUCTION OF CROPS (1970)

Products	Estimated Value Gross Production (million meticais)	Percentage of Gross Nat. Agricultural Production	Peasant Production as a percentage of Crop Production
1. Cassava	914	18	100
2. Maize	630	12	90
3. Cotton	580	11	67
4. Cashew	486	9	90
5. Sugar	357	7	3
6. Rice	338	7	43
7. Copra	258	5	21
8. Groundnuts	257	5	100
9. Tea	163	3	0
10. Tobacco	97	2	20
11. Potatoes	79	2	0
12. Sisal	67	1	0
13. Wheat	13	0	15
Sub-total	4 239	82	65
Others	911	18	89
Total	5 150	100	70

Note: 1/ The percentage produced by the peasantry for each crop is the ratio of traditional sector production to total production. For cashew and copra the share of the peasant is underestimated due to lack of information and the estimation procedure used. Others mainly include sorghum, millet, beans, horticulture and a variety of fruits.

2/ US$ 1 = 36 Meticais as of July 1982.

Source: Wuyths (1978) and UNDP/FAO (1976)

The communal village is conceived as a basic political, social and economic unit which should develop an autonomous administrative and political entity, responsible for its own administration, justice, security, finance, production and basic services. There were 1 059 communal villages at the end of March 1980. In all over 1 million people or some 8 percent of the country's population were resident in them. Over 60 percent of the 'aldeias' were in the provinces of Cabo Delgado, 30 percent in Nampula, Gaza and Niassa provinces. This pattern of concentration is, in the first instance, the result of the gradual liberation of the northern and northeastern provinces. In the second phase, a series of natural disasters, notably the floods in Zambezi and the Limpopo, led to a large-scale resettlement of the population in the affected provinces. Finally, the establishment of communal villages in other areas has been the result of political mobilization as well as, in some cases the spontaneous grouping of the population for collective production and basic services.

The villages so far established differ substantially in their stage of development. Some are very big and semi-urban in character in terms of services, others are medium-sized with relatively greater organizational development and some are newly started with work just begun on housing, land development etc. However, it appears that ideally a village would aggregate a minimum of 250 families on a given territory.

The internal organization of the communal village consists of a general assembly and an elected executive committee. In addition, there are one or more agricultural production cooperatives and consumer cooperatives, depending upon the size of the population and their needs. There is a party cell and a party secretary with clear leadership roles. At the district level, there is an official responsible for communal villages. The Government hierachy above the district level is the Provincial Commission of Communal Villages and the National Commission of Communal Villages (CNAC), the latter reporting directly to the President.

Seven different types of cooperatives were identified in the Law No. 9 on Cooperatives: Agriculture, fishery, industry, handicraft, consumer, housing and service cooperatives of which the consumer and agricultural cooperatives are the most important.

The total number of agricultural cooperatives is approximately 350 with around 33 500 members cultivating some 30 000 registered hectares.

The planned growth of the farm cooperative movement has been ambitious and it has been decided to select one pilot cooperative in each district for concentrating resources and support with a view 'to make of them models to serve as the basis for learning and experience for the new ones'. By the end of March 1980, 34 pilot cooperatives had been selected for special attention and support; of these, two-thirds were based within communal villages.

In 1979, the Office for the Organization and Development of Agricultural Cooperatives (GODCA) was established. Among its duties were 'the promotion of action to lead to a more systematic utilization of experience gathered in the cooperative sector, stimulating the great enthusiasm with which peasants welcomed the Party's directive for the creation of cooperatives and the creative

initiative of cooperative members, and promoting the wide dissemination of positive experiences'. The title of the office was changed to the Directorate for Cooperative Development in 1982, but functions appear to remain the same. Each agricultural cooperative is to have a general assembly, a controlling committee and a board of directors. The formation of these bodies is a pre-requisite for the registration of the cooperative and for Government assistance.

No exact new data are available to illustrate the sectoral and regional production structure after Independence. Yet it appears certain that the importance of the traditional sector has if anything increased in a relative sense from the 70 percent of the total agricultural production estimated before Independence. Some estimates are as high as 85 percent with the remaining 15 percent under organized sectors with the State sector overwhelmingly important (more than 70-80 percent). The organized private and cooperative sector share the remaining not more than approximately 5 percent of total overall production.

Estimates of land pertaining to the different sectors indicate the following distribution of land:

i. The state sector, with about 250 000 ha, which include 200 000 ha of cultivated land and 50 000 ha of sugar cane plantations;

ii. The cooperative sector with 70 000-80 000 ha, in which there are probably some 350 identified cooperative units with around 30 000 registered hectares;

iii. The former 'colonos' in the private sector who farm 60 000-70 000 hectares;

iv. The family sector, which has an estimated 2.5 million hectares under annual and permanent crops. Little information is available on this sector.

2.1.4 Land Use and Crop Production

Equivalent to Section 2.1.3 above the present section is divided into reviews of the pre- and post-Independence situations; but as a general introduction the following table indicates sowing and harvesting periods.

Table 7

CROP CALENDER

Crop	Sowing or Planting Period		Days after Sowing/Harvesting Period	
Wheat	mid-April to	mid-May	120-140	September
Rice	November to	December	150-180	April/May
Maize[1]	September to	mid-October	140-150	February/mid-March
Sunflower	January to	February	120	May/June
Potatoes	March to	July	100-110	mid-June/mid-October
Cassava	Aug-October to	March-April		all year
Soybeans	November to	December	115	March/April
Beans	March to	June	85-90	June/September
Groundnuts[2]	September to	December	120-150	February/May
Cotton	mid-November to	December	180-200	June/July

Notes: [1] The same dates apply for sorghum.
[2] Two harvests are possible in the South (sowing August and January).

2.1.4.1 Before Independence

In 1970 a total of some 3 million hectares of land was estimated to be used for seasonal or permanent crops. In addition, there were some 44 million hectares of natural pasture and 19.4 million hectares of forest and woodlands. The latter two of course included land potentially arable, but not in actual use. Table 8, below, indicates available data on land use for the land held in the modern and traditional sectors, respectively.

As can be seen only 20.6 percent of the land held in the modern sector was under cultivation, and lack of data is important in the traditional sector. It is relevant to note that the total land held in the two sectors excluding natural pastures and fallow held in the traditional sector, only amounted to some 6.3 percent of the total area.

Assuming for the traditional sector that fallow was equivalent to land under crops (i.e. 2.5 million hectares) and land in pasture equivalent to land for crops (i.e. 5 million hectares) the total area of land in agricultural use amounted to about 15 percent of the total area of 78.6 million hectares.

Table 8

LAND USE IN MODERN AND TRADITIONAL SECTORS, 1970
(Thousands of hectares)

	Modern Sector	Traditional Sector	Total
Seasonal Crop Area (of which fallow)	291.1 (94.9)	2 493.5 (not included)	2 784.6 (94.9)
Permanent Crop Area	223.8	mixed with other crops	223.8
Natural Pastures	1 074.5	not considered	1 074.5
Forest and bush lands	21.3	-	21.3
Other lands	876.9	-	876.9
Total	2 487.6	2 493.5	4 981.1

Source: UNDP/FAO (1976) with some corrections

Appendix 1 briefly summarizes the situation for each crop. The most important food crops were, and still are, cassava and cereals such as maize, sorghum, rice, millet and wheat. In addition, groundnuts and beans, sweet potatoes, potatoes and horticultural crops were grown.

Main industrial crops were cotton, sugar cane, tea, sisal, tobacco, sunflower and sesame and in addition, permanent crops like cashew, copra, mafurreira, mangoes, bananas, papaya, guava, pineapple, citrus, avocado, coffee and temperate fruits. Summary information is also given in Annex 1.

2.1.4.2 After Independence

Agricultural production in Mozambique suffered drastic decreases immediately after Independence and not only because of the departure of the Portuguese and the consequent general disruption of the economy. During 1976/77 the country suffered from a major natural catastrophe due to drought followed by floods worse than those experienced in the previous several decades. Almost half a million people were directly affected.

It is obvious that the above situation has implied a serious drawback for Government's attempt to restore production at pre-Independence level. This, coupled with the increased food demand from the low-income population which has

experienced real wage increases due to the Government's social policy, has led to serious food shortages especially in urban areas. The result has been increasing food imports totalling some 295 000 tonnes in 1981 and an estimated 356 000 tonnes for 1982.

It is difficult to establish a clear picture of recent developments due to lack of data on total agricultural production. Some statistics on production in the organized sectors (state farms, cooperatives and private modern sector farms) are available and indicated in Table 9. However, great care must be exercised when trying to generalize to the whole economy.

Table 9

CROP PRODUCTION IN ORGANIZED SECTORS[1]

Crop	Actual prod. 1979	Actual prod. 1980[2]	Actual prod. 1981[2]	1981/80 %	Planned prod. 1982[2]	Plan 1982 Act. 1981 %
Maize	24.6	40.4	46.2	114	114.3	247
Rice	47.5	42.6	34.4	80	71.5	208
Sunflower	1.6	3.9	4.0	102	10.57	264
Beans	0.7	1.3	1.35	104	4.4	326
Onions	-	8.5	2.5	29	9.7	388
Tomatoes (Ind.)	9.9	6.4	2.1	33	15.0	750
Vegetables	2.5	6.4	5.5	84	23.0	418
Potatoes	12.2	11.1	21.7	195	54.7	252
Citrus	39.0	37.3	36.7	98	38.3	104
Bananas	1.3	-	3.6	-	6.1	170
Pineapple	0.8	-	0.4	-	1.7	425
Tobacco	0.9	1.4	0.8	57	2.6	325
Copra	13.5	26.8	32.8	122	30.3	92
Tea (leaves)	-	18.9	19.8	104	22.5	114
Cotton (seed)	-	22.3	40.3	181	52.6	130
Cashew nuts	-	87.6	95.2	108	96.0	101
Sisal (leaves)	-	719.0	172.9	24	389.0	225

Notes: [1] i.e. state sector, cooperative sector and private organized sector.
[2] i.e. crop years 1979/80, 1980/81 and 1981/82.

Source: MONAP Semi-Annual Report (1982)

The total value of crop production in 1981 in the state sector was slightly more than 3 million contos (US$ 85 million) which is a 6 percent increase as compared to 1980. The export crops developed favourably during 1981 in comparison with 1980, especially cotton but also copra. Only citrus and tobacco showed lower figures than in 1981.

The food crops developed rather differently. Moderate increases of maize, sunflower, beans and a relatively high increase of potato production were counterbalanced by a considerable decrease in rice production and vegetables and very low figures for onion and tomato production. The rate of increase is clearly very ambitious when comparing the 1982 plan with actual production in 1981.

Trying to generalize developments from 1970 to 1981, reference can be made to the FAO Country Tables (1982) which show that indicies for total food production and total agricultural production in 1981 reached respectively 97 percent and 94 percent of the 1969-1971 level. Per caput figures are respectively 74 percent and 71 percent, confirming that the overall need for food imports in general is due to the population increase and increased per caput demand due to the Government's social policy rather than to an absolute drop in production.

A detailed discussion of each crop will not be attempted, due to lack of data, but further analysis in this regard is needed.

Regarding the land use pattern, no further data than those presented in the previous section are available. However, the average yields of the main agricultural crops in Mozambique continue to be low (i.e. 25-75 percent of normal) even compared to Africa standards. This reflects the complete absence of even the simplest technology and the lack of farm implements, especially in the family sector.

In the family sector there is very limited use of fertilizers, pesticides and improved seeds. With the exception of pesticides for cotton where a significant part is distributed to the family sector, all other seasonal inputs are mainly for the state sector.

Almost 66 thousand tonnes of fertilizer were imported for the 1981/82 season and distributed to the Directorate of Agriculture (UDA) and to the National Institute of Sugar (INA). Total consumption in addition includes a local production of some 8 thousand tonnes and 745 tonnes provided through the FAO International Fertilizer Scheme.

In terms of pesticides, 3.3 million litres of fungicides, 836 thousand litres of herbicides, and 1.7 million litres of insecticides were imported into the country. Insecticides were mainly for the cotton sector, fungicides mainly for UDA and herbicides to both UDA and INA as well as to the cotton sector.

Regarding import of seeds, available information indicates an import in 1981/82 of 330 tonnes of maize SR-52, 140 tonnes of maize R-200, 43 tonnes of soya of different varieties, seven tonnes of seed potatoes, almost 77 tonnes of wheat and 150 tonnes of sunflower. Through FAO a total of ten tonnes of vegetable seed and 100 tonnes of sorghum seed were provided in addition to the other imports.

Local production takes place at specialized state farms and about 1 650 tonnes of maize, 225 tonnes of cotton, 45 tonnes of soybeans and eight tonnes of groundnut seeds are estimated to be produced in 1981/82 by the National Seed Company (ENS)

2.1.5 Livestock Production and Health

Mozambique has a relatively small livestock sector which does not exceed about 3-5 percent of total agricultural production. The national herd predominantly beef cattle totalled about 1.4 million head in 1980 giving Mozambique a stocking rate of only 1.78 head/km^2, the second lowest in Southern Africa. The ratio of cattle to human population, 0.12 head/person is also very low. Most of the cattle are to be found south of the Rio Save. About 70 percent are found in the provinces of Maputo, Gaza and Inhambane and the remainder are confined principally to the Zambezia and Tete provinces, while Sofala, Manica, Nampula, Niassa and Cabo Delgado share about 11 percent of the national herd.

The average herd size is about ten animals, of which most are of the indigenous Landin type, especially in the family sector, while the Zebu type dominates in the commercial sector. The Angoni dominates in Tete.

Production is split between a modern sector and a family sector using different levels of technology and with consequently different - but generally low - levels of productivity. The Commercial sector (state or privately owned) channels all of its production into the marketing circuit, whereas a sizeable proportion of the production of the family sector of which a small proportion is grouped in cooperatives, is consumed locally.

Table 10, below, gives details on the cattle population as well as data on other livestock in 1980.

As may be seen about 14 percent of the cattle population are on state farms which vary considerably in size, containing from a few hundred to over 10 000 cattle.

The state sector has increased rapidly since Indepencence in 1975 following the nationalization of abandoned farms, but the overall cattle number fell after Independence. This is particularly true for dairy cattle where a total of about 14 000 (Friesian and their crosses) before Independence is to be compared with a total of some 3 600 cows in 1980. However, the total cattle number is now at the pre-Independence level.

Table 10

NUMBER OF LIVESTOCK, 1980

Species	State Farms	Private Farms	Family Farms	Total
Cattle	201 539	181 166	1 001 813	1 384 518
Sheep and Goats	5 568	6 990	413 283	425 838
Pigs	30 780	23 537	176 589	228 289
Poultry	variable	variable	24 000 000	-

Source: Ministry of Agriculture request for assistance in pasture production (1982)

The commercial off-take through slaughterhouses of the principal commodity beef is approximately 4 percent amounting to some 55 000 head in 1980. This is about 40 percent lower than before Independence indicating a marked decrease in beef production of some 50 percent as compared to 1974. The same has happened to milk and pig production whereas poultry production has increased markedly (185 percent for broiler meat) implying a need for a substantial import of raw material for the preparation of balanced feed as the country is not self-sufficient in cereals and protein sources.

The production capacity is at present affected by the fact that extensive pasture areas in southern Mozambique are degraded and infected by bush as a result of past mismanagement and it is important to reduce the tree cover in some areas to improve grass production and carrying capacity, but this reduction must take place and be followed up by adequate management to avoid the encroachment by bush.

Milk production on an industrial basis is limited to the district of Maputo and the cities of Beira and Chokwe. In Quelimane, Nampula, Chimoio and Gurue a small quantity is being distributed directly to hospitals and a few other consumers from private and state farms. Collection of milk is only organized in Maputo and in view of the relatively small quantity produced distribution is simple, carried out with two trucks or picked up directly by retail traders.

Prior to Independence Mozambique had a well developed poultry industry established during the sixties and concentrated around urban centres consisting of large hatcheries for commercial breed distributors and many small poultry farmers. With the exodus of most of the private producers at Independence, activities concentrated mainly on the commercial production of

eggs and broilers under the direction of the State Poultry Enterprise (Avicola) set up in 1977.

As in most parts of Africa, sheep and goats are widely distributed throughout the country as they are disease resistent. Virtually all goats and 60 percent of the sheep have traditionally been owned by the family sector and little work has been carried out to improve the existing indigenous breeds. Marketed production of sheep and goats is low but they are a valuable part of the low level of animal protein consumed by the rural population.

Pigs are also mostly of indigenous types and production is common as a part of mixed farming and as such is another source of animal protein. As compared to sheep and goats a much higher proportion of the pigs are however, commercially owned and pork is third after beef and broiler in terms of marketed supply of meat products.

Table 11 indicates the marketed supply of livestock products in 1980.

Table 11

MARKETED SUPPLY OF LIVESTOCK PRODUCTS, 1980

Product	Commercial		Family	Total
	State	Private		
Beef (ton)	2 293	3 486	2 869	8 648
Pork (ton)	1 040	270	-	1 310
Broiler (ton)	5 874	540	-	6 414
Mutton & Goat (ton)	-	-	50	50
Milk (1 000 ltr)	4 814	883	-	5 697
Eggs (1 000)	43 214	2 635	-	45 849
Skins (unit)	12 219	21 045	34 662	67 926

Note: Production of mutton and goat is estimated.

Source: Ministry of Agriculture request for assistance in pasture production (1982)

As regards the total meat supply in Mozambique, the drop in beef production led to increased imports and this together with the increase in poultry production has led to the development in total meat supply indicated in Table 12, below.

Table 12

MEAT SUPPLY

Species	1974	1975	1976	1977	1978	1979	1980
Local: (ton)	19 732	20 174	14 635	14 800	13 011	14 487	14 422
Beef	13 703	14 707	11 235	10 995	6 984	8 418	6 648
Sheep, Goat	144	63	65	22	20	30	50
Pork	3 635	3 304	1 285	783	1 200	1 510	1 310
Broiler	2 250	2 100	2 050	3 000	4 807	4 529	6 414
Imported: (ton)	=	100	110	4 624	5 367	n.a.	3 580
Beef	-	-	-	4 100	5 367	n.a.	3 580
Pork	-	100	110	524	-	-	-
Total (ton)	19 732	20 274	14 745	19 424	18 378	n.a.	18 002

Note: Production of sheep and goats is estimated.

Source: Ministry of Agriculture request for assistance in pasture production (1982)

The number and distribution of livestock in Mozambique are conditioned by the presence of the savanna tse-tse covering two-thirds of the country, and trypanosomiasis is now endemic as far south as the province of Inhambane. Trypanosomiasis together with tickborne diseases have been estimated to be the causes of approximately 70 percent of the mortality in cattle, whereas breeding diseases probably form the next most important group.

In the state and private commercial sector dipping regimes are followed, but constant dipping leaves the animals susceptible to the tickborne diseases, so any breakdown in dipping procedures often results in outbreaks of disease.

In the family sector there is probably a considerable variation in susceptibility depending on the effectiveness of dip tanks and the proportion of farmers making use of existing facilities.

East coast fever, according to a recent review by an FAO consultant, is only present in Angonia in Tete, where it causes considerable losses.

Foot and mouth disease is endemic in the west of Maputo and Gaza provinces on the border with the Kruger National Park. Although direct losses are relatively small, the existence of this disease may affect the development of milk production based on exotic breeds and be a hindrance to the export of meat products. Control of the disease depends on the systematic vaccination of dairy cattle every 3-4 months in the high risk areas, depending on the availability of the vaccine. Beef herds contributing to the national supply are similarly vaccinated. Reports are made weekly by the dip tank attendants. Movement restrictions are imposed regarding cattle marketing but during the dry season there is considerable movement of cattle to grazing and watering which is not restricted.

Of other diseases in the country, tuberculosis and brucellosis are important in certain areas, and rabies occurs in all parts. Blackleg is reportedly widespread but anthrax is very sporadic.

The number of vaccinations now carried out is higher than pre-Independence figures, but the situation regarding dip tanks is poor. Before Independence 800 were in operation, of which 400 had been built by commercial enterprises and 400 by Government in the traditional sector. At present only a total of some 400 are operating but often without adequate provision of acaricide strength and efficiency, thereby illustrating the marked reduction in the importance and operational capacity of the field services which has taken place after Independence.

2.2 INDUSTRY AND AGRO-INDUSTRY

The Mozambican industry was up to the early sixties heavily diverted towards the processing of agricultural crops (especially sugar, cotton, sisal, tea, grain, vegetable oils, cashew and tobacco) mainly for export. Even as late as 1971 the agro-allied industries represented more than 75 percent of the total industrial production.

The changes in the colonial policies after 1960 reflecting the continued need for cheap raw material, but now also the need for consumer goods to the settlers implied however that by 1971 about two-thirds of the production went to the local market and only one-third was exported. The two most important sectors were food processing and textiles representing more than 50 percent of total production (approximately 40 percent and 14 percent respectively).

The sector was unevenly developed both in terms of geographical location and in terms of size of production. Approximately 50 percent of all the more than 1 400 enterprises were located in Maputo and more than 15 percent in Beira. Furthermore, only 5 percent of the enterprises produced more than 40 percent of total production whilst the smallest 60 percent produced only 12 percent of the production.

Characteristic for the industrial sector was the non-existence of a heavy industry of means of production and the insufficient linkage of industry with agriculture. This was particularly clear in the field of industries

producing fertilizers, tools and agricultural machinery. The production of hoes, shovels and ploughs did exist, but on a limited scale and no agricultural machines requiring more advanced technology were produced. As far as fertilizers were concerned, the quantitatively significant production (some 8 000 tonnes in 1979) was also clearly insufficient for the country's needs.

The agro-industrial sector suffered a drastic drop in production at Independence and pre-Independence production levels are in general yet to be attained. This is not caused by a lack of capacity, but by problems in managing and supplying the sector with raw materials.

The policy of FRELIMO in the industrial sector has been to encourage the owners of capital and expatriate management and technicians to stay in Mozambique. However, nationalizations have taken place in cases where factories were abandoned, were clearly mismanaged or were of national importance, and by 1980 approximately 50 percent of all industrial enterprises had been nationalized.

The present structure clearly reflects the colonial inheritance, and just bringing the sector back into operational order has been a major undertaking. Yet, it is the long term objective of the Government also to change the structure so as to serve the real needs of the country in a more optimal way.

2.3 FORESTRY

2.3.1 Forestry Resources

The information inherited from the colonial period is characterized by a mere qualitative knowledge of the Mozambican forests. A recent assessment by an FAO consultant indicates, however, that there are some 5 million hectares of high to medium productivity (i.e. average productivity is 6 and 3 m^3/ha respectively) and 15 million hectares of low productivity (average productivity 1 m^3/ha). This amounts to respectively 6 percent and 19 percent of the national territory. To this must be added some 37 million hectares with a combined silvo-pastoral potential. The existing volume of high commercial value species is relatively low; but there is a substantial scope for increasing the use of secondary species.

The relatively low density of natural forests of course limits the potential for industrial development based on this resource, but it can be noted that there is a considerable potential for development of plantations which presently cover some 30 000 ha. Main species are Pinus and Eucalyptus with average yields of nearly 15 and 25 m^3/ha respectively. Existing forests are very homogeneous with a few species (especially Brachystegia sp. and Julbernaria sp.) contributing the bulk of the volume.

Exact information about the volume of extractions is lacking; but it has been estimated that it is at least in the order of 10-12 million m^3/year, considering the present level of development of the economy.

In summary, despite the fact that irrational exploitation, felling and uncontrolled fires have had serious effects on the natural forest cover that existed, Mozambique still possesses considerable valuable forest resources, especially if proper management measures are undertaken.

2.3.2 Forest Industries

The existing forest industries were established in colonial times with a view to export and supply to the Portuguese part of the population, mainly in Maputo. Tropical hardwoods were cut and exported as logs, sleepers, parquet etc. and furniture in colonial style and construction materials were produced for the internal market.

The colonial exploitative policies resulted in a highly irrational production structure with processing industries far away from the raw material supply. This is evidenced by for instance the Maputo industrial complexes which are supplied with wood i.a. from northern provinces. Readjusting this production structure and increasing the capacity for producing sawn wood for the internal market is a painful and time-consuming process.

There are about 80 sawmills, two veneer lines, four plywood plants and four parquet plants, and the Manica Forest Industries Complex under establishment includes a sawmill and a furniture plant utilizing particle board. However, most of the industrial equipment is technically obsolete. Spare parts are in short supply, technical and managerial talent is scarce and standardization is practically non-existent.

Production data are not published at a detailed level, but a yearly total felling of some 400 000 m^3 for industrial and export purposes has been indicated. However, serious problems in using this wood in current installations have been experienced leading to wasting up to as much as 75 percent of the raw material. Wood exports in 1980 and 1981 amounted to 19 and 21 thousand m^3 respectively.

Two state enterprises are directly involved in production activities:

i. 'Madeiras de Moçambique' (Mademo) is responsible for harvesting and commercialization of wood for internal consumption and export. It also controls the private sector.

ii. 'Industrias Florestais de Manica' (IFLOMA) is responsible for the forest industries complex in Manica.

The creation of a Unit for the Direction of the Economy including EMOFAUNA, the state enterprise responsible for economic utilization of wildlife resources, is foreseen. Mozambique has a number of national parks which have a high development potential.

2.4 FISHERY

2.4.1 Fishery Resources

The large Mozambican continental shelf has been estimated at between 70 000 and 120 000 km^2 and the country is believed to have an important fishing potential.

A survey of the marine fish resources of Mozambique was carried out from August 1977 to June 1978 and the following results were reported:

Table 13

SUMMARY OF THE MARINE FISHERY RESOURCES OF MOZAMBIQUE
(Thousands of Tonnes)

	Maximum stock size	Total Present Catch	Maximum Potential Yield
DEMERSAL FISH			
St. Lazarus Bank	10	0	1
Rest of the Coast	200	30	50
PELAGIC FISH			
Anchovies	300	0	300
Other small pelagics	300	30	150
Larger pelagics	?	less than 0.5	?
Sharks	?	2-3	?
MESOPELAGIC FISH	1 000	0	1 000
CRUSTACEANS			
Shallow-water shrimp	16	12	15
Deep-water shrimp*	0.5-1	less than 0.5	?
Spiny lobsters	1	less than 0.1	0.3
Crayfish	0.1-0.5	?	?
REEF FISHERIES	?	?	5-10
INSHORE FISHERIES	?	?	5-10

Note: *includes only the stock south of Bazarute Island.

Source: Saetre and Paula e Silva (1979)

It should, however be stressed that all the abundance estimates as well as the estimates of annual potential yield, should be regarded as approximations rather than the results of accurate calculations.

2.4.2 Small Scale and Industrial Fisheries

Most of the fishing along the coast of Mozambique is of the subsistence type and is confined to the immediate coastal waters. However, over the last two decades an industrial shrimp fishery has developed and a semi-industrial fishery has started exploiting the inshore fish resources.

For the artisanal fishery no official statistics are available and primitive techniques of fishing with dugout canoes and beach seines are still widespread, and fishing represents a supplementary activity to farming for many of the more than 40 000 recorded fishermen. Their catch, estimated at more than 20 000 tonnes, represents a large part of the rather low rate of 1980 fish consumption of approximately 3.3 kg per person per year. This however, represents an almost tripling of the 1973 consumption level.

The semi-industrial fishery is worked mainly by small trawlers and gillnetters which operate at depths between 10 and 20 metres. The national industrial fishery based on shrimp fishery and fish landings as a bycatch consists of some 80 freezer trawlers and 65 smaller boats which catch up to 10 000-12 000 tonnes of crustaceans part of which is sold at the international market at more than US$ 50 million. Still, the marine fishery remains underexploited with a total catch of fish officially recorded at less than 30 000 tonnes per year.

However, it should be noted that before Independence (1974) the total catch was only 15 655 tonnes per year of the industrial and semi-industrial fisheries.

There are some foreign fisheries based on the resources of Mozambique working under licensing arrangements. The fleets come from the German Democratic Republic, Iraq, Spain and Japan.

The state enterprises, EMOPESCA and SULPESCA, are directly involved in respectively industrial and small scale fisheries productive activities under the two units of direction, INDIPESCA and UNIPESCA. The joint ventures in industrial shrimp and fish production are PESCAMAR, EFRIPEL and MOSOPESCA. PESCOM National and International are responsible for commercialization of shrimp, fish and fish products and imports are handled by EQUIPESCA.

2.5 FOOD SECURITY AND COMMODITY TRADE

The Ministry of Internal Commerce is responsible for food security in Mozambique and in 1981 a special office was set up in the Ministry to deal with food security.

Up to Independence, Mozambique was self-sufficient in the production of maize and rice but imported virtually all wheat requirements, which then corresponded to about 110 000 tonnes per year. Since Independence, however, the country has become an importer of all basic food grains, and wheat imports are now over 150 000 tonnes.

It is generally considered that the rural population practising traditional agriculture has maintained its self-sufficiency conditions, although the daily calorie supply is below requirements. The urban population, however, is entirely dependent for its food requirements upon local production surpluses and imports.

Since Independence the country has been heavily dependent on South Africa for importation of maize as well as wheat. However, due to the extraordinarily good harvest in Zimbabwe in 1980/81, it was possible for Mozambique to sign an agreement with Zimbabwe for import of 75 000 tonnes of maize with a delivery of 5 000 tonnes per month by rail. However, there have been severe bottlenecks concerning the transport of the maize from Zimbabwe as well as problems with opening the credit line. Therefore, up to June 1982 only approximately 21 000 tonnes of the 75 000 tonnes foreseen had been delivered.

At the meeting of the Southern African Development Coordination Conference held in Lusaka in April 1980, the Government of Zimbabwe was charged with the task of preparing a food security plan embracing the nine countries of southern Africa participating at the conference.

The food security policy of Mozambique is based on the recommendations of that Conference. A food grain reserve of 60 000 tonnes is foreseen for Mozambique consisting of 10 000 tonnes in Nacala (North), 15 000 tonnes in Beira (Centre and 35 000 tonnes in Maputo (South). This reserve would provide cover for two months against import delays (50 000 tonnes) and at the same time provide sufficient emergency stocks (10 000 tonnes) for disaster situations. To store this quantity new storage facilities are required, and the construction of silos in Beira will start in end of 1982, under a FSAS project.

During the 1979/80 cropping season rainfall distribution was irregular and production in five of the ten provinces was reduced to about 50 percent of normal levels. In addition to the food needed in the urban areas estimated at approximately 503 000 tonnes, the rural areas suffered a loss of approximately 290 000 tonnes of cereals.

The estimated total marketed cereal production in 1980/81 was: Maize, 166 200 tonnes; rice, 56 400 tonnes and wheat, 400 tonnes.

The estimated consumption needs, excluding the subsistence sector, was estimated for 1981 to 590 000 tonnes of cereals (150 000 tonnes of wheat, 310 000 tonnes of maize and 130 000 tonnes of rice).

The total grain imports in 1981 actually amounted to 295 000 tonnes (wheat, 156 000 tonnes; maize, 71 000 tonnes and rice, 68 000 tonnes), indicating that not all needs were met.

An overview of the 1982 cereal situation as of 30 June 1982 is indicated in Table 14, below, and further information on food donations 1980-82 is indicated in Appendices 2 and 3.

Table 14

OVERVIEW OF CEREAL DEFICIT SITUATION
FOR 1982 AS OF 30 JUNE, 1982 IN MOZAMBIQUE

	Commodity			
	Maize	Wheat	Rice	Total
Food needs in urban areas	260 000	170 000	125 000	555 000
Emergency aid for rural areas affected by drought	75 000	5 000	10 000	90 000
Foreseen national marketed production	90 000	1 000	30 000	121 000
Total Import Need	245 000	174 000	105 000	524 000
Commercial Imports Possible	60 000	105 000	56 000	221 000
Uncovered Import Needs	185 000	69 000	49 000	303 000

Source: National Planning Commission

A particular aspect of the cereal situation in Mozambique which deserves mention is that the consumption pattern of the European settlers has spread to the Mozambican population and the country's production structure for agricultural goods is poorly equipped to deal with this demand pattern. Wheat was for example, mainly consumed by the settlers and this habit has rapidly been taken over by the Mozambican people so that in 1979 over 135 000 tonnes of wheat had to be imported and in 1981, 156 000 tonnes and 175 000 tonnes are foreseen for 1982.

Finally, it canbe mentioned that in order to safeguard a minimum intake of necessary food a rationing system was introduced in Maputo in 1980 for a few strategic commodities. At the present mement the following quantities are distributed per person per month: 4.5 kg of cereals (rice, maize, wheat flour, spaghetti), 1 kg of sugar and $\frac{1}{2}$ kg of soap. The quantities vary slightly from month to month depending upon the quantities available for distribution.

3. INSTITUTIONAL ARRANGEMENTS AND AGRARIAN SERVICES

3.1 GOVERNMENT DEPARTMENTS AND NATIONAL INSTITUTIONS

3.1.1 National Planning Commission

The National Planning Commission (CNP) headed by the Minister of Planning has important National Directorates for International Cooperation, Planning and Statistics. In addition, the Department for Prevention and Control of Natural Disasters is placed in CNP.

The CNP is in general terms responsible for the overall coordination and integration of agricultural development plans and statistics. In addition the CNP coordinates all relations with external donors.

3.1.2 National Commission of Communal Villages

The National Commission of Communal Villages (CNAC) was established in 1977, and comprises the Ministers of Agriculture, Health, Education and Public Works and Housing and is responsible for the coordination of the different sectoral activities concerning the establishment and development of communal villages.

The Commission reports directly to the Office of the President and the executive powers of the Commission are exercised through its Director. The Commission is organized into a number of Departments including Planning, International Cooperation, Training and Documentation.

3.1.3 National Commission for Prices and Salaries

Within the State apparatus there has since 1980 been a unit responsible for analysing and coordinating studies on prices. This Department is based in the Ministry of Finance which in case of agricultural products has corresponding sections in the Ministry of Agriculture within the National Directorate of Agrarian Economy and in the Ministry of Internal Commerce. The units coordinate price studies and submit to the National Commission for Prices and Salaries proposals on price levels. The Commission is chaired by the Minister of Finance.

3.1.4 Ministry of Agriculture and SERLI

3.1.4.1 Ministry of Agriculture

The Ministry of Agriculture has been through a number of reorganizations after Independence before arriving at its present structure. The basis for this structure is a distinction between three levels: State apparatus including national directorates, units for direction of the productive activities and enterprises and production units.

The State apparatus defines policies and plans, directs and organizes the agrarian sector through a basically normative function, whereas the units of direction direct and coordinate production and service activities in specific areas (sector or strategic product) for which they are responsible. The enterprises and production units are directly responsible for specific production or service activities as the case may be.

The above distinctions are a result of the recognized need to properly distinguish between the functions of central Government and intermediate units of direction, characterized by their responsibility for a sector or a strategic product, and the key role assigned to planning in the development process.

An overview of the Ministry is given in Figure 5, below.

The duties of the National Directorates in specific include macro-economic planning of agrarian development, identification, appraisal, monitoring and evaluation of big and medium-sized development projects and technical normalization.

The duties of the units of direction in specific include approval of annual plans prepared by enterprises relating to the targets established by the CNP, organization and distribution of the principal production inputs and control of project execution and development and annual plans.

The State Secretariats for Cashew and Cotton were created to be responsible not only for the overall planning etc. as the National Departments, but also to be directly responsible for the management of the sectors. This mixture of functions reflects the big importance of the two products, and it should be noted that the Secretariats are responsible not only for respectively cotton and cashew but for the overall agricultural development in the zones where cotton and cashew are important.

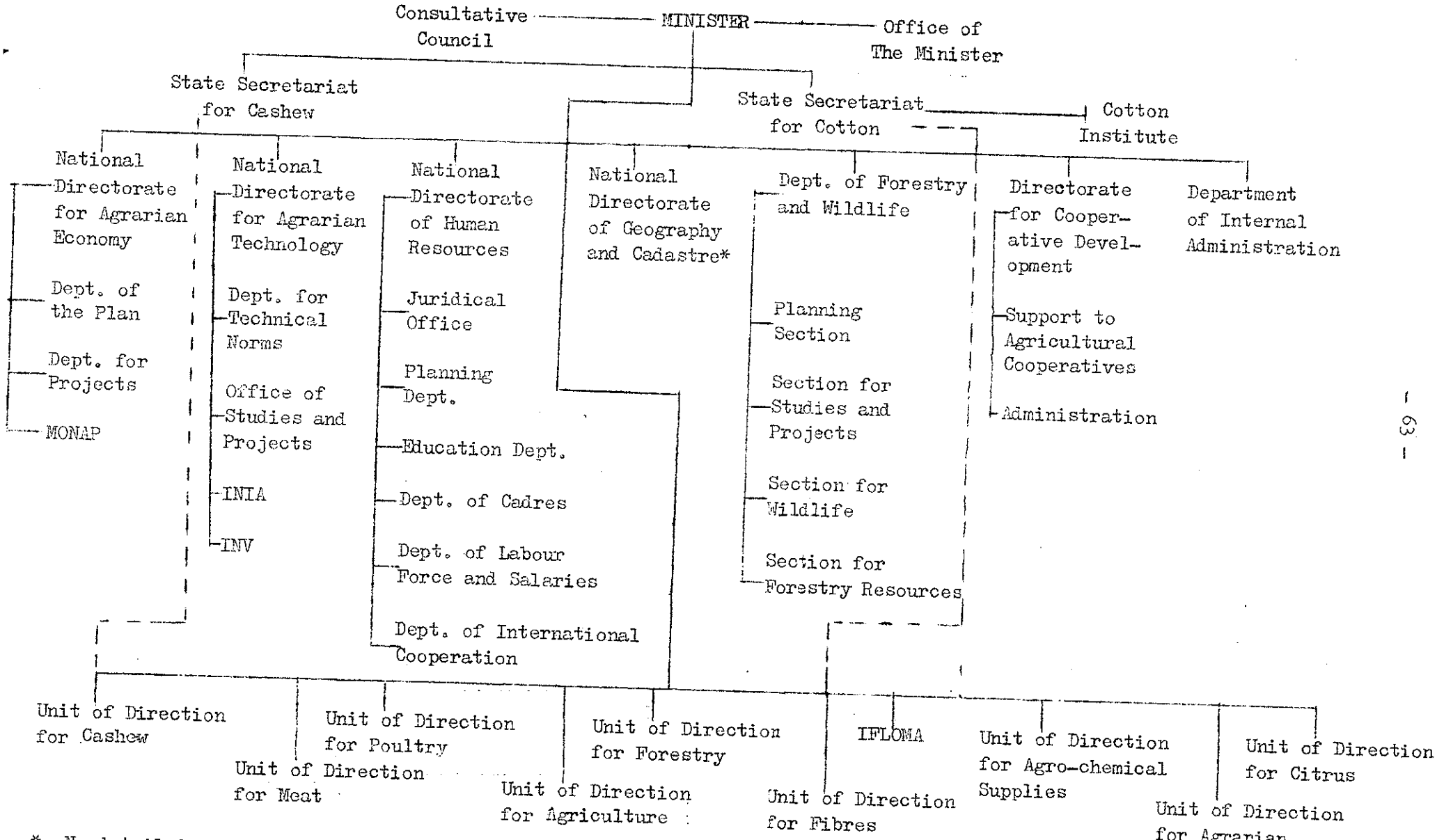
The Ministry is represented in each province by a provincial director of agriculture, whose responsibility is to organize and integrate the functional services for the province. Staffing at the district level is uneven, and though most district offices now have a district agricultural officer, few of these appointees have professional training. The Ministry is heavily dependent on expatriates for technical capability. Agricultural expertise has always been very scarce in Mozambique, and this is especially so since Independence.

3.1.4.2 SERLI

The State Secretariat for the Accelerated Development of the Limpopo and Incomati Region (SERLI) which is responsible for the whole regional development of the Limpopo and Incomati Region, situated in the provinces of Maputo and Gaza was created in 1979. Among the reasons for the creation of SERLI, which is the only structure of this type, are low and uncertain agricultural production, caused by irregular rainfall implying periodic crises, a high degree of rural-urban migration and to the mines in South Africa, a high potential for irrigated agriculture and for agro-industries and an insufficient capacity of the Provincial Government to identify and implement development projects. SERLI

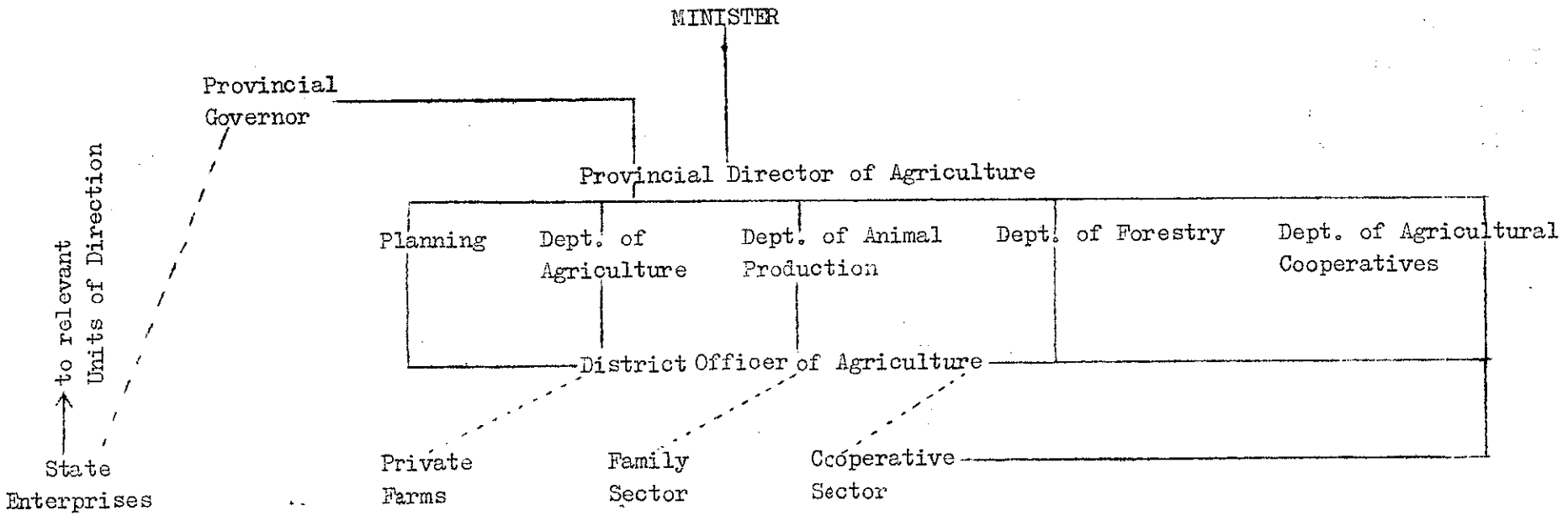
Figure 5

ORGANIZATIONAL STRUCTURE OF THE MINISTRY OF AGRICULTURE



* No detailed structure is available but the Directorate has sections including Landsurvey and Cadastre, Tematic Mapping, Topographic Mapping, Map Actualization, Cartographical Design, and Administrative Services.

Figure 5 (continued)



which is headed by a Secretary of State is directly subordinate to the President and has prepared a master plan for the development of the region.

3.1.5 Ministry of Internal Commerce

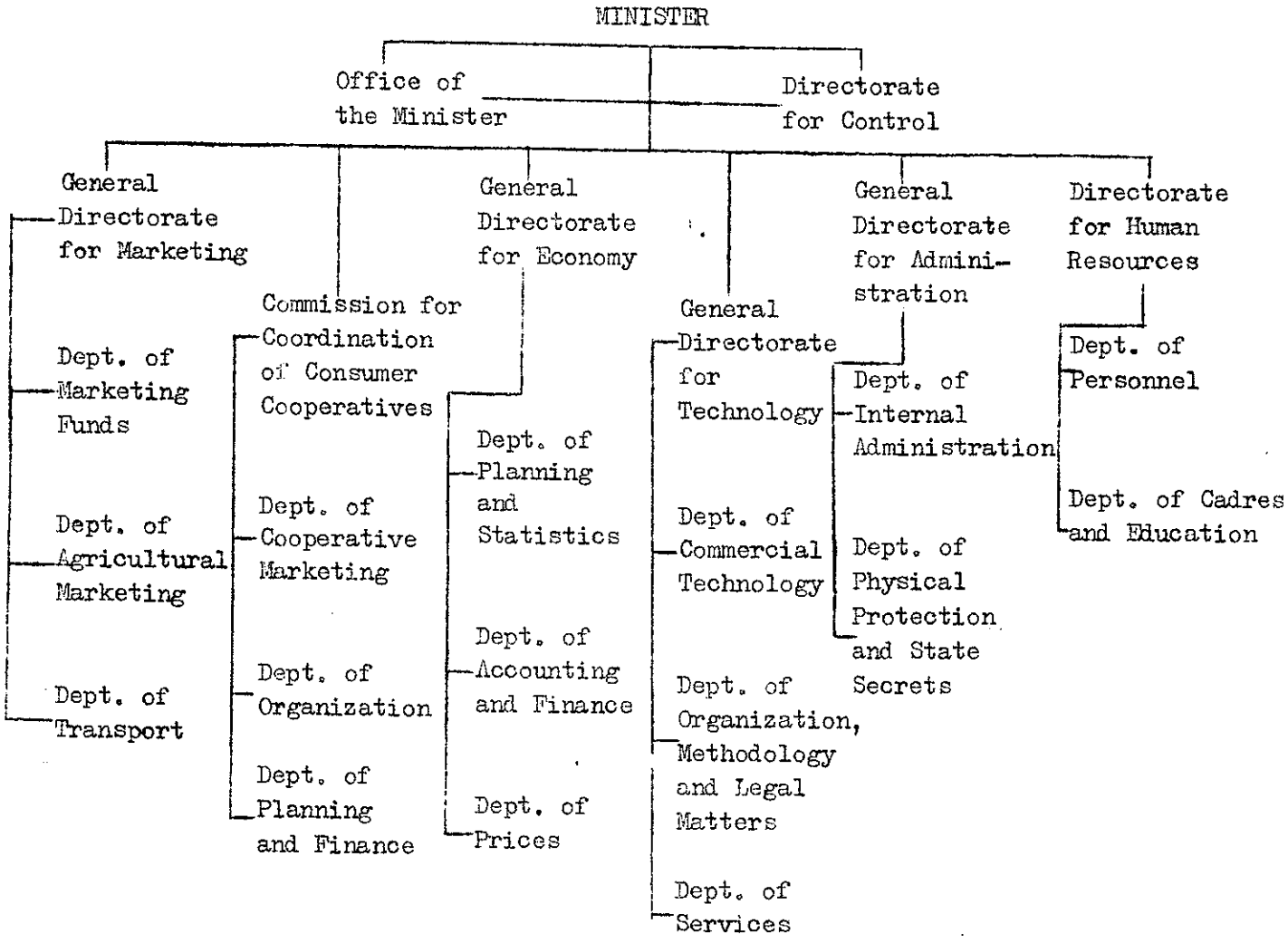
The Ministry of Internal Commerce has responsibility for the entire supply and distribution of goods in the country. It arranges purchase, stocking and distribution of consumer goods and agricultural inputs, and buys grain from the farmers.

In addition, the Ministry is in specific the Government agency responsible for the implementation of the national food security programme recommended by the 1978 FAO Food Security Policy Formulation and Project Identification Mission and approved in April 1979 by the Government of Mozambique. Within the Ministry, this task has been assigned to the General Directorate of Marketing. Within this Department, the Food Security Office is in charge of day-to-day operations related to the implementation of the food security programme.

An Organizational Chart of the Ministry is given in Figure 6.

Figure 6

ORGANIZATIONAL STRUCTURE OF THE MINISTRY OF INTERNAL COMMERCE

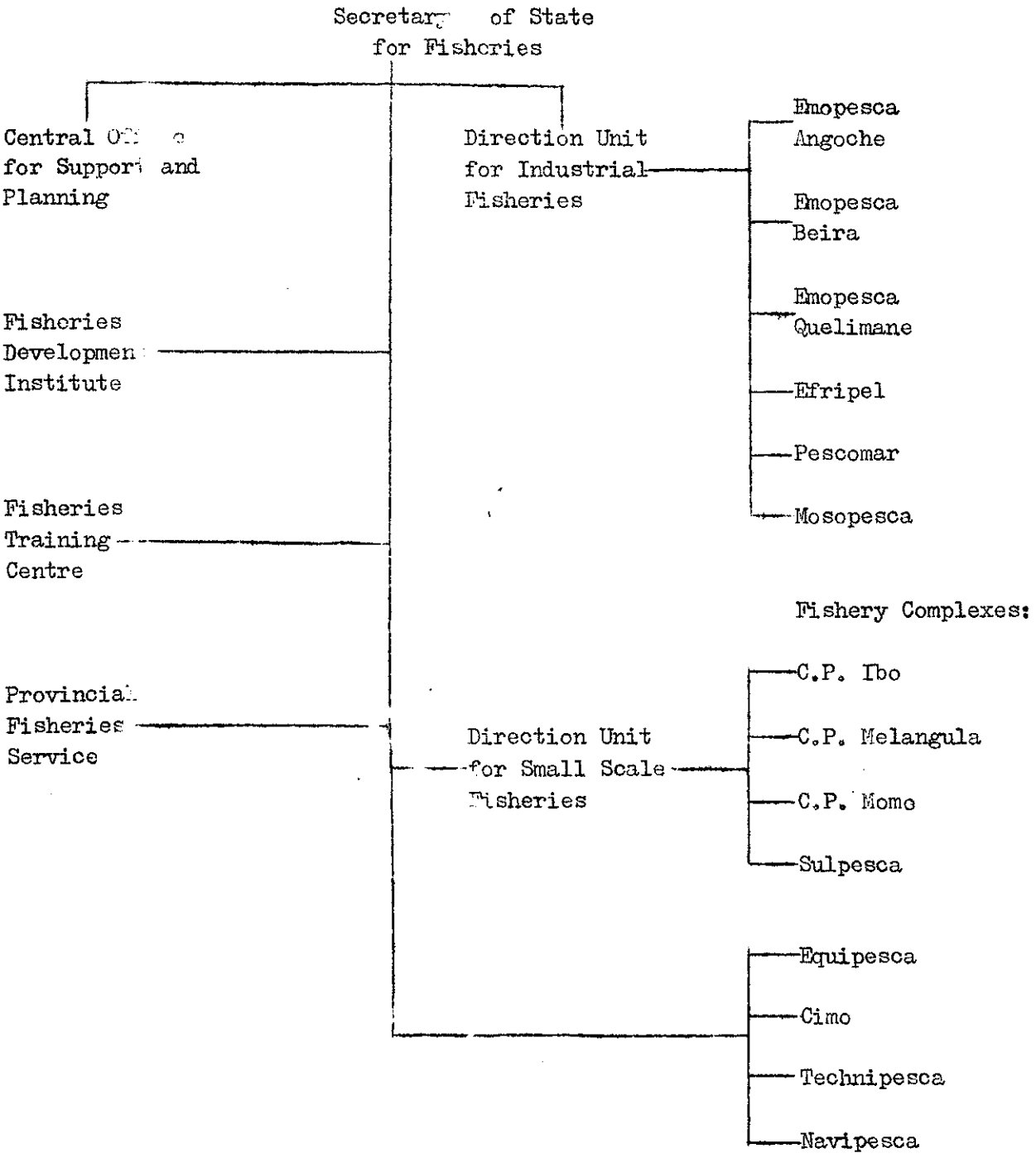


3.1.6 Ministry of Industry and Energy

The State Secretariat for Fisheries, the Unit of Direction for Foodstuffs and the Sugar Institute are under the aegis of the Ministry of Industry and Energy. Figure 7 gives the structure of the State Secretariat of Fisheries.

Figure 7

STATE SECRETARIAT OF FISHERIES



3.1.7 Ministry of Health

The Ministry of Health will be responsible for the FAO executed project in the field of food quality control and hygiene.

3.2 MARKETING

Before Independence, the rural marketing system consisted of a network of approximately 6 000 rural traders ('cantineiros') who were in general Portuguese. The cantineiros were the main distributors of agricultural inputs and consumer goods as well as collectors of surplus produce from the small farmers.

The exodus of the cantineiros resulted in an almost complete collapse of the marketing network and a new system had to be created. Consequently, in 1976 a Directorate for Distribution of Agricultural Inputs and Crop Marketing, DINECA, was established within the Ministry of Agriculture; and retail trade was entrusted to the socalled people's stores under the Ministry of Internal Commerce alongside with private dealers.

However, the people's stores were not successful and have since been replaced by private retail traders and consumer cooperatives. The former now number approximately 4 000, mostly former employees of the cantineiros. The consumer cooperatives now number approximately 1 000 benefitting about 19 percent of the total population. Yet the cooperatives although spreading are in general handling smaller quantities than the privates and only some 20 percent of them are in the rural areas.

Also DINECA was inefficient and it was abolished in November 1978, and a new Agricultural Marketing Division within the Ministry of Internal Commerce was created, in addition to a State enterprise, Boror, under the responsibility of the Ministry of Agriculture. In April 1981, a State enterprise, AGRICOM E.E. was formed to support the Agricultural Marketing Division within the Ministry of Internal Commerce.

The main objective of AGRICOM E.E. is to function as the leading wholesaler of cereals in the country at district level, alongside with State distributors such as COGROPA for foodstuffs, INCATEXT for textiles etc. However, in view of the lack of a well functioning marketing distribution network, AGRICOM also assumes marketing functions not limited to cereals. AGRICOM's buying brigades and fixed buying points purchase the surplus of the small farmers, the production of the state farms, cooperatives and private farms, but in addition AGRICOM sells and distributes consumer goods, agricultural implements (hand tools) and seeds to the farmers. In many remote rural areas AGRICOM is the only Government structure reaching the rural population. In 1981 agricultural marketing year an estimated 25 percent of the total marketed production was channelled through AGRICOM, the rest through the private dealers.

Boror Distributor E.E. has the monopoly of distribution of seasonal agricultural and veterinarian inputs. The enterprise has its head office in Maputo and regional warehouses in Beira (1 000 tonnes capacity), Quelimane (700 tonnes), Nacala (8 000 tonnes) and Nampula (4 000 tonnes). It also has regional delegations in Beira, Quelimane, Nampula, Maputo and sub-delegations in Chimoio and Lichinga.

The State enterprise in charge of import and export of agricultural inputs is INTERQUIMICA.

Another service function of great importance to the agricultural sector, namely agro-service stations, is under the responsibility of MECANAGRO. This enterprise is responsible for maintenance and repair of agricultural equipment, storage and distribution of spare parts at a national level. MECANAGRO also provides agricultural equipment and machinery services on a rental basis to different entities within the Ministry of Agriculture. Of direct importance to MECANAGRO and the agricultural sector in general is also INTERMECANO which is responsible for import and export of vehicles and heavy equipment.

The export and import of agricultural products is to a large extent handled by ENACOMO, which exports tea, copra, coconut oil, oil cakes, cotton, sisal, tobacco, salt, sesame seeds, cashew nuts and cashew oil and imports rice, maize, wheat, milk products, onions, potatoes, cloth and raw material for the textile industry.

In the fisheries sector PESCOM National was originally designed to carry out fish distribution and marketing, but is now also collecting and storing the fish at various locations. The import/export company is PESCOM International and EQUIPESCA is responsible for import and distribution of fishery equipment and inputs from boats to hooks.

In the forestry sector the key company is Mademo being responsible for both export and import of wood and wood products as well as internal distribution of wood. In addition, all specialized inputs are imported directly by Mademo.

Fixed prices and controlled margins apply to all agricultural outputs and inputs. Regarding typical outputs such as maize, rice and cassava, the National Price Commission upon recommendation of the Ministries of Agriculture and Internal Commerce sets prices for every stage of distribution from producer to consumer, i.e. producer and wholesale levels, at the mill gate and to the consumer. These prices are followed by AGRICOM, but private traders sometimes offer slightly higher prices to producers.

Price increases have averaged 15 percent per year between 1972 and 1979 more or less following the inflation rate. However, in 1980 and 1981 most prices were raised 40-50 percent above the inflation rate so that the level of producer prices is now generally considered satisfactory.

The purchase prices to the producer in rural markets or at fixed buying points are as follows:

	1981	1982
Maize	4.00 MT/kg	6.00 MT/kg
Rice	6.20 MT/kg	6.20 MT/kg
Cassava	3.00 MT/kg	4.50 MT/kg

Purchase prices to the retail trade and to the agricultural production units are:

	1981	1982
Maize	4.35 MT/kg	6.50 MT/kg
Cassava	3.40 MT/kg	5.10 MT/kg

The consumer price for maize is 9.00 MT/kg in 1982 as compared to 7.00 MT/kg in 1981. The US$/MT exchange rate is 31 MT per dollar.

3.3 AGRICULTURAL CREDIT

The Bank of Mozambique (BM), which also serves as Central Bank, and the People's Development Bank (BPD) are the main providers of credit to the agricultural sector.

The Bank of Mozambique is mainly concerned with foreign trade and commerce and provides credit to big estates producing i.a. tea, sugar, cashew, sisal and tobacco, which are of major importance to the foreign currency transactions of the Bank. The provision of credit is governed by the Annual Plan approved by the People's Assembly.

Other credit for agriculture is supplied and administered by BPD in collaboration with the Ministry of Agriculture. BPD has its head office in Maputo and branches in all provinces. In addition, there are 21 agencies, 24 urban delegations and an unknown number of postal delegations. Only the branches and agencies are empowered with authority to give credit whereas delegations may only receive deposits. Credit has mainly been supplied for agricultural machinery and mainly to the state farms and cooperatives.

The link between the BPD and the borrowing unit are the Government representatives responsible for either the area (the provincial director of agriculture) or the field of activity (National Directorates) as appropriate.

Any State enterprise in need of capital will after making its plan submit a proposal to the National Directorate responsible which reviews it and submits to BPD. After approval BPD opens two accounts, one for handling the loan itself, the other for depositing the receipts from the sale of final

goods and services rendered by the enterprise. An estimated 80 percent of all BPD credit goes to the State enterprise sector.

Cooperatives approach the provincial director of agriculture with their requests for credit and they are accorded short, medium or long term credit in accordance with the needs and stage of development of the cooperative. An estimated 15 percent of all BPD credit goes to the cooperative sector.

So far only a neglible amount of credit (less than 1 percent) has found its way to the traditional peasant farmers. Private modern sector farmers also channel their requests through the provincial directors of agriculture, but in this case evaluation of the request is carried out directly by the Bank and it is in general rather difficult to obtain loans for this sector. Only some 5 percent of the total BPD credit accrues to the private farmer.

The State enterprises and cooperatives are not required to provide collateral before obtaining loans; but private farmers and traditional peasants must do so. Collateral may range from personal belongings to assets of the farm and no specifications have been defined in this regard.

Interest on loans is charged by BPD at the rates per annum indicated in Table 15.

Table 15

INTEREST CHARGED BY BPD

Period	State Sector	Cooperative Sector	Family Sector	Others
Loans of more than one year	4%	3%	4%	5%
Loans of less than one year	5%	3%	4%	6%

Source: BPD

BPD encounters a number of major obstacles to the implementation of a more optimal credit strategy and the following can be mentioned:

BPD encounters a number of major obstacles to the implementation of a more optimal credit strategy and the following can be mentioned:

i. The present staff is inadequate in number and ill-prepared to deal with a great number of production units;

ii. A new set of lending policies and procedures has to be devised;

iii. Delinquency rates have been high;

iv. There is an acute shortage of funds to support increased agricultural credit lines.

3.4 RESEARCH

Agronomic research in Mozambique is in general under the responsibility of a National Agricultural Research Institute (INIA). However, in the field of cotton, cashew, citrus, tea, sugar, coconut and fruits direct responsibility lies outside INIA.

During the colonial period research was concentrated on crops for export or processing and some information on soils, plants, insects etc. was compiled. Yet, in general little is known about the suitability of the environment for the various crops in the different regions of the country. The same accounts for knowledge about the practical field level application of technology or on methods of research, training and social organization involving people's participation.

Since Independence more emphasis has been given to research on food crops, and presently INIA is in a restructuring phase to remove some constraints to a well functioning and effective research programme. The lack of direction and proper planning of the research programmes resulting in uncoordinated activities has been pointed out as well as lack of proper integration of expatriate experts in the INIA structure, an excessive degree of centralization in Maputo and lack of links between research and production activities.

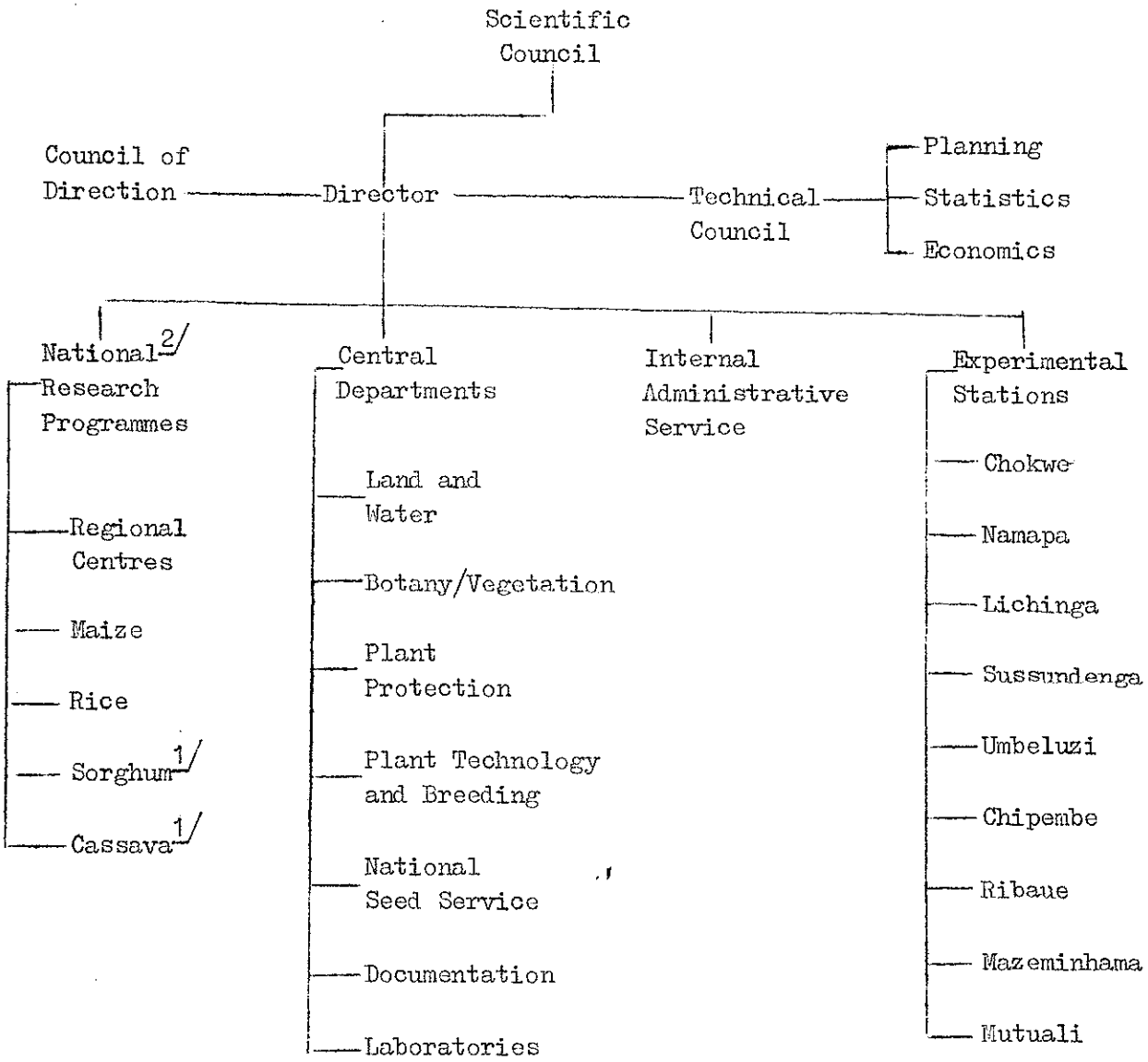
Despite the serious difficulties encountered after Independence including the departure of Portuguese staff the fact remains that programmes relating to soils, maize, wheat, potatoes, groundnuts (major activities are exceptionally under the University) and fertility were bigger in 1981 than in 1973 in quantity as well as in quality.

The activities of INIA are structured as indicated in Figure 8, below.

The diagnostic and research arms of the veterinary service are controlled by the National Veterinary Institute (INV), the former INIVE, in Maputo, which is responsible for routine diagnostic procedures, research projects, vaccine production and food hygiene. It also administers the regional laboratories, the largest of which is at Chimoio.

Figure 8

STRUCTURE OF INIA



1/ Programmes to be established in 1983-85.

2/ Besides the National Research programmes there are research programmes in specific locations on wheat, potatoes, beans, soya bean, vegetables, pasture and mechanization.

At the time of Independence the animal health services suffered a severe decrease in the numbers of veterinarians and technicians. This was partly due to an exodus from the country, and partly due to the need to transfer staff to the state farms which were created from properties abandoned by the commercial (private) sector. This resulted in a lowered efficiency of both field operations and the activities of the Veterinary Research Institute. However, efforts have been made to strengthen the Institute. From 1977 assistance has been provided i.a. under a MONAP-funded project to provide direct support to the national livestock production by improving animal health and to carry out research and investigation in the field related to the diagnosis of the diseases of livestock and also to the production of vaccines.

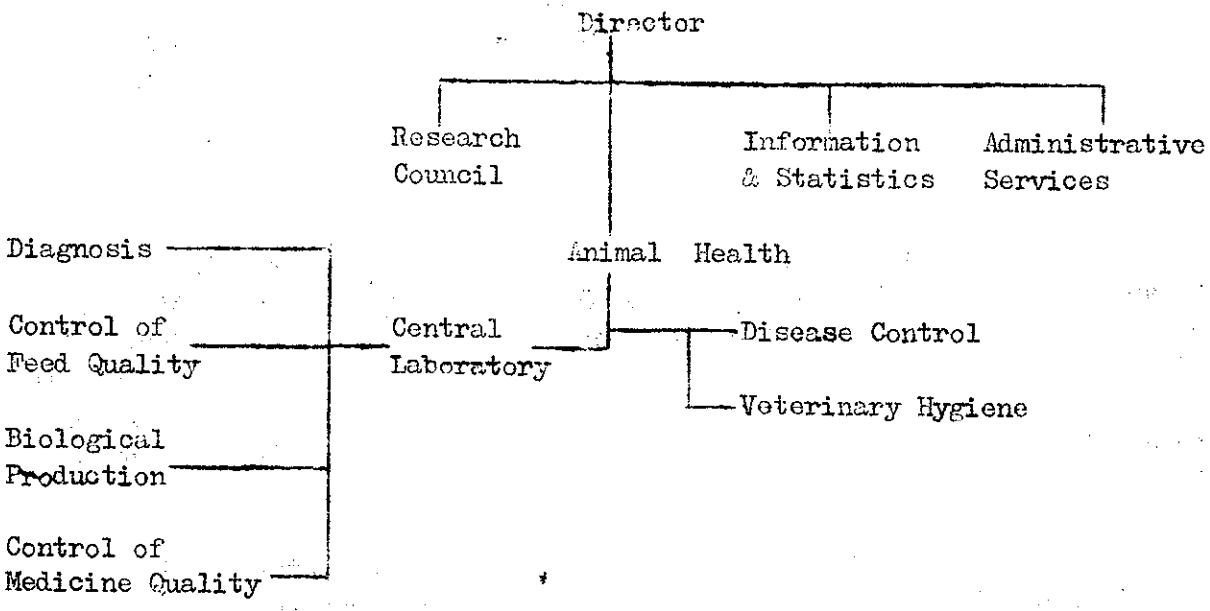
At the present time the Institute has therefore recovered its diagnostic capability, research programmes are starting, and sufficient vaccine and tuberculin is being produced for the needs of the country. Foot and mouth vaccine alone is imported as the expense of manufacture is too great relative to the number of doses required.

However, as seen by the monthly chart of diagnoses made, the number of samples submitted to INV, and more especially to the regional laboratories, is sometimes insufficient to supply the necessary disease surveillance data. Thus, it has been proposed that INV embark on its own research programme in the field to define disease priorities (both control and research), gather data for disease surveillance and, by using the regional laboratories in this exercise, strengthen the links between the field, the regional laboratory and INV to ensure future inputs of samples.

The organizational structure of INV is presented in Figure 9.

Figure 9

STRUCTURE OF INV



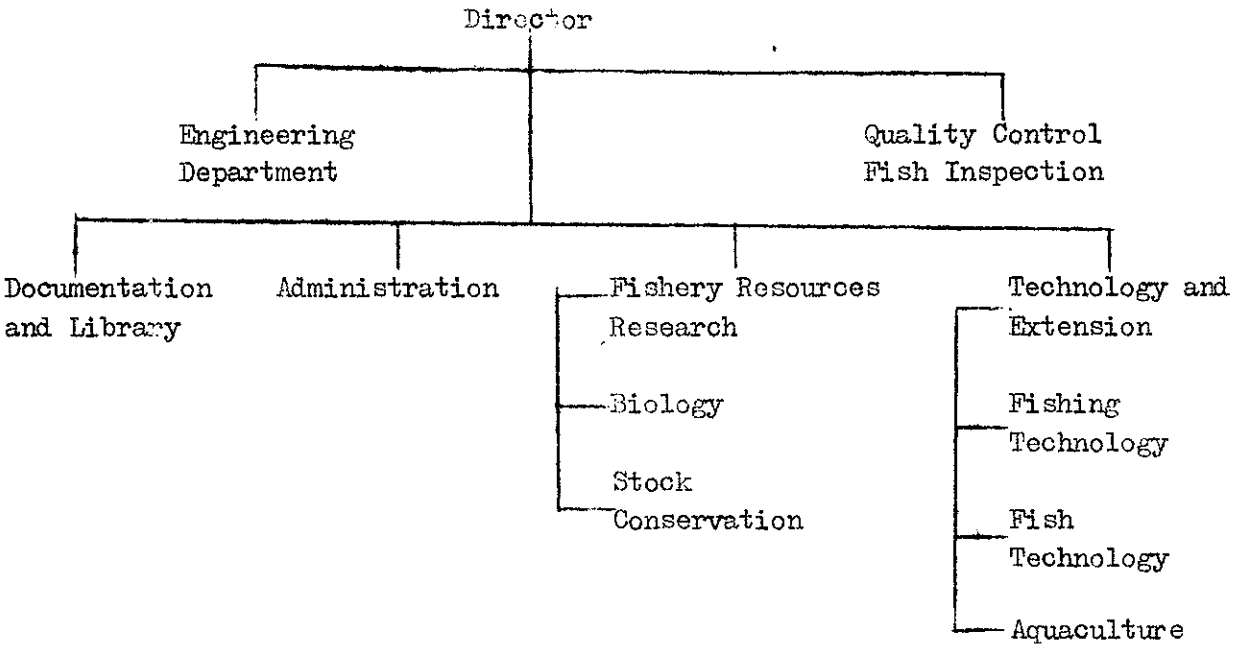
Fisheries research is based in the Institue of Fisheries Development (IDP) as indicated in Figure 10.

Since 1976 at least ten research vessels have been undertaking excessive surveys to assess the distribution, potential and biological characteristics of the marine resources capability for industrial exploitation. However, there is need for a research vessel to follow up on the work done by the Norwegian vessel Fridjot Nansen on inshore waters potential.

On inland water research some resource surveys have been carried out under a MONAP-financed fisheries project, and bio-statistics have been collected with reference to catch and its composition. In addition emphasis has been put on developing catch strategies in selected waters for the national development of inland and inshore fisheries.

Figure 10

STRUCTURE OF IDP



No forestry research centre or institute has been established in Mozambique equivalent to INIA, INV or IDP. However, research activities do exist in relation to several of the more than 20 development projects with different sources of funding, which are under implementation, and under the State enterprises, Mademo and Ifloma . Activities mainly include work on forest inventory, introduction of exotic species, silvicultural techniques in natural forests and wood technology studies.

The fragmented and yet not fully coordinated nature of the research work is recognized, and some concrete activities are underway to institutionalize the research in the forestry sector.

3.5 AGRICULTURAL EDUCATION, TRAINING AND EXTENSION

3.5.1 Education and Training

The agricultural schools existing before Independence only trained very few Mozambicans. The teachers were Portuguese and most of them left in 1975. Furthermore, whichever training had been given was at a high level not adapted to the country's real development needs. The result was a situation characterized by extremely low levels of technically trained manpower in the fields of crop production, animal production, forestry and fisheries.

This can be illustrated by the fact that only some 54 Mozambican professionals with a college level education existed in the country in 1980 in the former three disciplines, the total number with medium level background was 52, with a basic level 341 and elementary level only some 2 300. Reconstruction of the agricultural training has only recently come under way after a policy for agricultural training was worked out. The system of agricultural training may be set out as follows:

Table 16

SYSTEM OF TRAINING IN MOZAMBIQUE

Level of Training	Length of Course	Criteria for Admission
Professional	4 years	Form 11
Medium	3 years	Form 9
Basic	1-3 years	Form 5-6
Elementary	½ year	Form 4
Peasant Training	short courses	Form 2/literate

Note: The criteria for admission may be less if other factors such as working experience justify this.

The professional and medium level schools are under the responsibility of the University and the Ministry of Education whereas basic, elementary and peasant training are principally under the Ministry of Agriculture, but with a significant number of basic schools still under the Ministry of Education.

The recruitment base for medium and professional levels is very small at present, illustrated by the fact that in 1980/81 only some 950 students completed their 9th grade of school. Hence the emphasis on training at the three lower levels is of the highest importance.

For the time being, crop and animal production are the areas of concentration at elementary and basic levels; but subjects also include animal health, forestry and wildlife, topography etc.

Table 17 indicates an estimated size of the number of schools and students completing each year at these two levels under the Ministry of Agriculture. In addition, the Ministry of Education has eight basic level schools with a total capacity of about 2 000 students.

Table 17

ESTIMATED NUMBER OF SCHOOLS AND STUDENTS COMPLETING BASIC AND ELEMENTARY LEVEL UNDER THE MINISTRY OF AGRICULTURE

Level	Basic Level		Elementary Level	
Year	Schools	Students	Schools	Students
1981	6	347	15	661
1982	6	398	19	956

Of medium level schools there is only one agrarian institute in Chimoio with a total capacity of some 280 students offering a three year course consisting of a basic agricultural course followed by specializations in forestry, mechanization and agronomy. Some 62 students completed in 1981 and 83 students will complete their studies in 1982.

At University level there are two faculties for agriculture and forestry and veterinary medicine at the Eduardo Mondlane University. The length of the studies for a B.Sc. is four years with limited attention given to practical training or production. The number of students is still very low, and only some eight students graduated in 1981/82.

Fishery education and training is another example of a critical need for the Mozambican development process. In the industrial shrimp fishery which has reached some level of technical sophistication the massive departure of expatriate masterfishermen after Independence created serious problems in maintaining and operating the fleet. A fisheries training centre has been established in Matola (near Maputo) with the goal of training 50 engineers and 50 masterfishermen each year as well as conducting intensive upgrading courses for those Mozambican skippers and engineers already working in the fleet.

3.5.2 Extension

Following Independence at which time an agricultural extension network as such was non-existent it has become increasingly obvious that one of the great challenges faced by the Government is to find ways and means by which to transfer knowledge about improved agricultural technology to the level of the farmers. In view of the serious shortage of trained personnel and the need to keep key State functions in operation as well as a concentration on the State farms originally left agricultural extension for small farmers and cooperatives to be the responsibility of district agricultural officers. They have had very limited time to carry out this function which added to the existing serious lack of field knowledge and low level and training.

The State farms being better staffed and equipped have clearly been in a somewhat better position to obtain advice and knowledge on improved methods of production. However, in practice also the State farms lack ready access to advice.

The People's Assembly at its regular session in June 1979 recommended that the State farms should assume their role as centres for the propagation of agricultural techniques and support the cooperatives and communal villages, and this has later been stressed in making the State farms responsible for the implementation of overall plans in their respective areas of influence. However, the capacity of the State farms is as mentioned limited and the fact remains that there is at present no structure capable of coordinating and delivering extension services to the cooperatives and communal villages let alone the peasant family farmers.

This observation, however, does not intend to diminish the important efforts made in improving the transfer of technology in for example the cooperative sector, in establishing regional centres for research and development and in the cotton sector. In addition, the presence of technical assistance from a great variety of countries does, of course, imply an increased flow of information, especially to the State farm sector than would otherwise have been the case. Finally much emphasis is being placed on ensuring that future cadres will be educated and have included in their training practical field experience.

Regarding veterinary extension activities it can be mentioned that provincial laboratories exist and that in the districts the veterinary services are in the hands of the district animal production service, which provides services such as vaccination, and that services to the family sector are free of charge. However, extension activities as such are, as for the agricultural sector in general, limited.

For the fishery and forestry sectors the same is true. There is no fishery extension staff at all. Provincial fishery services exist, but it is only now with the establishment of a number of fishery complexes that extension activities are being initiated. The complexes will coordinate the assistance

provided to small fishermen and receive support from relevant sections in the Fisheries Development Institute. In addition to this, the reorganization of so far paralyzed fish culture stations are foreseen to function as training centres and pilot production units giving assistance to small scale fishermen.

3.6 FOOD HYGIENE AND CONTROL

According to the Development Plan the 1981-90 Decade will be characterized by an important increase of agricultural production. However, not only increasing the quantity but also maintaining and bettering the quality of the food is an important element in improving the overall nutritional value of the food and conditions of the population. Therefore, control of food quality and hygiene in production, processing, packaging, storage and preservation as well as prevention of contamination and control of residues of chemical treatments will become more and more important.

Usually the storage, processing and marketing places are well organized and being kept under good hygienic conditions. However, some problems arise periodically in connection with storing fungicides and pesticides . In warehouses, refrigeration facilities which are missing or out of order, lack of adequate packing material, lack of chemical products used for analysis in the local laboratories and lack of trained personnel.

The National Directorate for Preventive Medicine in the Ministry of Health which is the Government agency responsible for food and water quality control and hygiene has started related activities in 1977 by establishing a well-equipped laboratory under bilateral funding, and the intention is to continue efforts in this sector in collaboration with other ministries. The number of Mozambicans working in relation with food hygiene is totalling about 900 nutrition agents and laboratory staff.

Major activities of the food control programme include legislation and standardization on food production, processing and handling as well as issuing guidelines for maintenance of hygienic conditions. In this field assistance is being obtained through the FAO/WHO/OAU Regional Codex Commission for Africa, of which Mozambique has become a member in April 1981. Under the food control programme also quality control of exported food, e.g. sugar, vegetable oils, cashew and food for commercialization is included. The Ministry of Health works in close collaboration with UDRA, the management unit responsible for the national food processing industries including mills and production of pasta, bread, biscuits, chocolate, candies, baby food and tobacco. UDRA also has a laboratory. Wheat flour, for instance, in the milling industry is checked for humidity, acidity, protein, dough elasticity, stability and consistency. Pasta products are boiled and tested for rheological and organoleptical properties. Finally periodical controls of drinking water, installations in hotels and restaurants and public places are undertaken. A recent study has been prepared on the frequency of coli-bacteria in the waters along the beach of Maputo.

While the laboratory in the Ministry of Health is the responsible body for analysing processed and commercialized food, other laboratories exist, e.g. for meat inspection in the National Veterinary Institute (INV) and for vegetables and cereals in the Agricultural Research Institute (INIA). In order to avoid duplication of work the creation of an interministerial National Commission on Nutrition and Food Hygiene is under consideration with the purpose of assuring an exchange of data between the concerned institutions.

4. AGRARIAN DEVELOPMENT

4.1 DEVELOPMENT POLICY

4.1.1 Potential

Considering the area which is being cultivated at present and the very low levels of yields being attained, it is evident that there exists a considerable natural potential for expanding production in area as well as in yield.

Furthermore the potential for irrigated land is impressive running into more than a million hectares. In addition, the hydroelectrical potential is enormous and fishery and forestry resources as well as possibilities for livestock development are excellent as indicated in Chapter 2.

Despite the fact that the total availability of natural resources is not yet fully known, it is nevertheless clear that Mozambique can become not only self sufficient in agricultural products but also an exporter to less favoured countries in the region or to the world market. With respect to the latter this should be modified for certain crops (such as tea or sisal) where world prices may be unfavourable or where outdated production techniques inherited from colonial days are used.

On this background it is obvious that it is of crucial importance that choices relevant to the country's situation and needs are made regarding the most optimal use of these resources to attain the objectives defined for the development of the country.

4.1.2 Objectives and Priorities

The basic development objectives in Mozambique were reviewed in Chapter 1 from an overall point of view. In relation to the agricultural sector the objectives emerged clearly from the Third Congress of FRELIMO in February 1977.

In the document summarizing the economic and social directives it is stated that the key objectives are to:

i. Guarantee the supply of the basic agricultural products necessary to diminish imports and improve the nutritional status of the population, with special attention being given to the supply of basic necessities to urban centres;

ii. Supply the industrial sector with raw materials necessary to use the existing capacity;

iii. Increase production levels and attain the previous volume of exports.

These objectives of satisfying the food needs of the country, supplying raw materials to the agro-industry and increasing the export capacity have later been confirmed in the ten-year porspective plan for the 1981-90 decade and in the 1982 Annual Plan.

Other objectives include for instance environmental protection, and key priorities in the export sector are cashew, shrimp, cotton, sugar and wood. In the food crop sector emphasis is on maize, rice, potatoes, wheat and soybeans in addition to emphasis on meat and fish.

The achievement of the abdve objectives will demand a great investment effort in agriculture including training. The implementation hereof will depend not only on the basic constraints to be identified in Section 4.1.3, but also on the chosen development strategy and policies discussed in Section 4.1.4.

4.1.3 Constraints

The basic constraints to realizing the objectives of the Government in terms of socio-economic development have been the subject for a number of different missions and studies. The latest was the UNDP/FAO Strategy Review and Project Formulation Mission which visited Mozambique in June 1981 (UNDP/FAO. 1981). The following constraints were identified:

i. Lack of trained personnel and manpower;
ii. Lack of foreign exchange;
iii. Lack of an adequate marketing system;
iv. Lack of communications;
v. Lack of meaningful research and statistics;
vi. Human and animal diseases;
vii. Weakness of agricultural support services.

These constraints correspond closely to those identified in the Mozambique background paper for the country review (FAO, 1980) which also included the following points:

i. State of war/problems of reconstruction;
ii. Scattered nature of the population;
iii. Inheritance of bad forestry management;
iv. Bad water management;
v. Urban migration;
vi. Language problems.

Most of these constraints are still valid ones, and have been exemplified in earlier Chapters of this report. However, to fully understand and appreciate the present Mozambican reality, these individual constraints must be seen as connected with the structural deformation of the economy caused by the particular predatory type of colonial system experienced over centuries combined with the conjunctural unbalances arising as part of the process of social transformation of the country during the post-Independence

period. In addition, the exodus of those previously managing productive and service sectors and external factors such as the continued unrest and a number of natural disasters have reinforced the structurally based constraints.

The results of the above situation are well known and include the reduction of basic food production, the problems in re-establishing modern sector production and rentability and the irregularity of supply of essential consumer goods consumed by peasant families. It is obvious that the solutions to these problems can only be seen in a long term perspective, the basis of which will be the strategies and policies to be discussed below.

4.1.4 Strategy and Policies

As indicated in Section 1.7 agriculture has been identified as the base for socio-economic development in Mozambique, and the socialization of the countryside as the main objective of the decade. In addition, the specific objectives for the agricultural sector have been indicated in Section 4.1.2 above.

The key importance of Government's overall rural development strategy therefore needs no further stressing. Two major aspects of this strategy can be identified as essential:

i. The presently dispersed rural population is to be organized within self-sustaining socio-economic settlements which are called communal villages ('aldeias comunais') and based on production cooperatives, with the intention of transforming the present socio-economic environment in the rural areas;

ii. The increased agricultural production with emphasis on export cash crops and food crops is to be realized through the progressive development of two types of economic units, State farms and cooperatives.

The discussion below will review the essential roles of the communal villages, cooperatives and State farms and some of the main problems facing these institutions are discussed.

4.1.4.1 Communal Villages

The establishment of communal villages as a strategy springs from the need to create an adequate social structure for the development of the country. During the liberation struggle it was found that no political and administrative reorganization would be possible in rural areas without regrouping the vastly dispersed population in villages. In addition, the village is to serve as a mechanism whereby Government can ensure the dissemination of the benefits of economic development to ~~peasant~~ farmers as well as to seasonal labourers. Furthermore, the villages are to provide the framework not only for economic material progress but also for broad based social development.

Following Independence communal villages now numbering more than 1 000 with about one million people were established, mainly in the north of the country where the rural population was already grouped either in villages organized by the liberation army or in camps established by the Portuguese to control suspected populations. They have also been organised in the southern provinces to resettle the population from flood-prone areas.

The population resettled has been attracted by the possibilities for a better life, provision of services, water supply etc., and achievements in this regard have implied significant improvements in the standard of living. However, it is on the other hand true that it is a relatively limited number of villages which have been established in accordance with the theoretical model emphasising local initiative and collective production.

Furthermore, the process of communal village organization has been affected by many errors which derive mainly from the big burden of insufficient trained personnel, together with lack of financial resources to satisfy minimum needs in the initial stage of the communal villages. Many of the sites selected have neither good soil nor water, and this has affected the new villagers adversely.

It has therefore been decided to slow down the process and further expansion will be on the basis of carefully planned schemes. Such plans are being prepared in some provinces, but their implementation is still hampered by the constraints just mentioned. Nonetheless, despite these difficulties the emphasis given to communal villages as a basis for rural development is kept unchanged. This was for instance stressed by the President in October 1981 in a review of the ten-year perspective plan. It was specifically mentioned that pilot 'aldeias' should be established in every district and that they should be supplied with all necessary inputs.

It must be noted, however, that the productive basis for the communal villages in the longer run according to Government should be that of the co-operatives and the State farms. So far the main economic basis has been the family farm agriculture, and further development therefore appears to be very much dependent upon the degree of success of the cooperatives and the State farms.

4.1.4.2 State farms

State farms in Mozambique were originally organized by the Government to take over and manage farms and estates abandoned by the Portuguese and the Government strategy is to develop and expand this sector into efficient production units using a high degree of modern technology. This is done in order to recuperate production, and the sector is expected to play a strategic role since, in Government views, only the State farms can contribute rapidly and regularly to the basic supply of exports, local agro-industries and urban consumption, thereby creating the surplus necessary to fuel industrial development. In addition, the State farms are also expected to provide technical services to the cooperative and small farmer sectors.

It is unquestionable that independent Mozambique had to undertake drastic measures to safeguard valuable assets from destruction, and the State farms have played an integral part in this strategy.

On the other hand, it is beyond doubt that the above policy has been followed at a very high cost, and it is even questionable whether a net financial income has been generated. This does not mean that future surpluses cannot be generated, and there are indeed indications of increased efficiency; but further developments must be carefully planned. In addition, it may be observed that because of the lack of high-level trained manpower, Mozambique will continue for a significant period of time to be very much dependent on technical assistance from more experienced countries.

4.1.4.3 Cooperatives

Cooperativization is with an approximate 350 cooperatives still at a very incipient stage in Mozambique and presently mainly consists of abandoned farms taken over by their former workers. However, there are also cooperatives established because of peasants' recognition of the advantages of joint production.

The Government intends, as part of its rural development strategy, to broaden the cooperative movement and has set it as a goal for future organization of the whole traditional small farmer sector. Some 40 pilot cooperatives have been established, but it is the intention to establish a pilot cooperative in each district of the country in a first phase. These cooperatives will receive necessary financial, technical and material assistance to improve their production and efficiency.

The intention is as mentioned in Section 4.1.4.2 above to make the cooperatives the basis for the communal village together with the State farms. Production should be organized collectively and ideally cooperatives would associate collective production and individual plots. They would be based on oxen cultivation whenever possible, and would introduce mechanization only to face major works such as land clearing. Links would exist to agricultural services and other sectors. Surpluses from the production would be invested in an industry producing basic goods.

The cooperative movement has met with a number of difficulties, and most seriously, the productivity is lower than productivity on peasant farms with a consequent sharp fall in income generated. Therefore, a big part of the peasants in cooperatives do not join them wholeheartedly, and they take any opportunity to return to their family farms.

Other problems relating to the cooperative sector are connected with the lack of direct support from the State including the State farms, and the still rather authoritarian approach leading to passivity on the part of the cooperatives. The latter can be exemplified by the limited role which the cooperatives have so far had in the planning process.

Targets have tended to be formulated at national and provincial level without proper integration of the farmers who have had little or no influence on the decisions on how much land they - by law - are obliged to till.

4.1.4.4 Conclusions

As is clear from earlier chapters and sections an ambitious strategy for the development of Mozambique has been prepared and some basic policies decided upon.

However, the problems in the formation of communal villages and cooperatives and the lack of efficiency in the State farms provide an incentive to examine fundamental causes for this and to develop and introduce corrective measures. Large and increasing food imports, low level and irregular supply of consumer goods in rural areas and difficulties in reestablishing modern sector production are serious problems faced by Mozambique.

In the above regard, it has often been pointed out that all emphasis seems to be on State farms and cooperatives with little or no attention being given to the small peasant farmers. As these are the main producers of agricultural products and continue to play a significant role also in terms of marketed production, the above emphasis should be reconsidered it has been suggested.

Furthermore, when considering the relationship between State farms on the one side and cooperatives/small farmers on the other, it has been suggested that too big a share of existing resources goes to the State farms and that the level of technology chosen is inadequate.

Not much factual data on the distribution of investment resources is publically available to highlight the above issues. Therefore, rather than speculate on the optimal distribution of resources it may be more useful to make a number of points for consideration in the continuing process of social change taking place within the overall strategy chosen.

Regarding the State farms it has already been pointed out above that they have had an essential function in safeguarding production facilities. Past inefficiency and lack of production may be reversed provided proper planning is undertaken. Furthermore, the continuing dependence on more experienced countries is clearly questionable, but it is also clear that State farm specialists should be drawn upon by the surrounding aldeias and cooperatives as recommended by the People's Assembly. The fact remains that there is presently virtually no other extension service supporting the traditional sector.

Regarding the aldeias and cooperatives it needs to be kept in mind that to emphasize this line is well justified. The effort to reach millions of farmers in terms of technical assistance, finance, marketing and all the

other elements necessary to develop modern agriculture, is far beyond the technical or financial capacity of the Government. Even if this is reached after a few decades of persistent trial and error, only a small minority of those peasants will be able to remain in agriculture, as has happened in many other countries of the world, developed or developing. The rest would become a heavy burden for the urban sector of the country. Collective or group farming seems to be the only way through which the country can assure employment for all the peasantry and a guaranteed share of the production of food and of the income generated within the rural sector. The collective approach has been identified as the most rapid and economic way of promoting growth in this sector, profitting from the economies of scale derived from this type of system, which more easily permits the introduction of advanced technology, together with a more efficient use of the few experts available to give technical assistance. Concentration of the population in villages will also facilitate provision of education, health care and other services, as well as creating a labour reserve for the peak seasonal demand of workers in the development of large-scale agricultural projects.

It seems justified to note that despite the fact that the number of cooperatives so far formed is small as compared to Government's expectations, not all of them have been a failure. Some have been very successful. The reasons for their success can be found in the existence of some determinant factors which were absent in the rest of the communal villages and cooperatives. In the first place, the careful selection of areas with good quality soils and the existence of good quality water can be cited. Another important factor has been that most of the successful cooperatives within the communal villages have been set up on land left by European colonos, where there is irrigation, especially in horticulture, and where the owners have left a tractor, a pump and/or a lorry. High profit crops can be grown there, and members of such cooperatives, some of whom were the labourers of the previous owners, are assured an annual salary far above that earned before Independence. Also the labourers who had been working for the previous owners, were better trained in agricultural production, involving the use of a more advanced technology.

Another aspect which may be considered is the interdependence between the family plot and the work in the cooperatives. The tendency has been, partly due to lack of trained personnel and partly to lack of financial resources, to accept the existence of the family farm without any systematic action to better its productive conditions, the only exception being those family farms in areas in which cash crops (e.g. cotton) are produced. When communal villages are formed, and within them cooperatives, measures could be taken to furnish the necessary elements to increase labour productivity in the family farm, and at the same time to raise total production. This will considerably favour the availability of surplus labour from the family farm to work in the cooperative. In addition, all the simple measures that can expand production within the family sector will have a twofold favourable effect - to produce food surpluses for the country, and an easier availability of labour for the expansion of cooperatives.

The implication of the above approach where Government's strategy is recognized and key areas for further consideration are identified, is to conclude in the formulation of an overall scheme of support to the process. Seven such areas were considered essential by the recent UNDP/FAO Programming Mission (UNDP/FAO, 1981):

i. To strengthen Government planning capacity;
ii. To develop scientific research;
iii. To develop incentives for the formulation of cooperatives;
iv. To develop production of certain specific crops;
v. To develop a significant training programme;
vi. To strengthen the marketing system;
vii. To improve communications with the peasantry.

Such programmes should be developed so as to further the development process already initiated in the country.

4.2 DEVELOPMENT PLANNING AND INVESTMENT

4.2.1 Planning in the Agricultural Sector

The overall framework of long, medium and short term planning was set out in Chapter 1 and therefore need not be repeated here. However, a few additional points with reference to the agricultural sector may be useful.

The National Directorate for Agrarian Economy in the Ministry of Agriculture and the General Directorate for Economy in the Ministry of Internal Commerce play significant roles in the planning process. They are responsible for the overall coordination and final preparation of counter-proposals to the National Planning Commission as well as being responsible for elaborating the original proposals from CNP including production targets and input limitations at departmental and State enterprise level.

The basic principle behind the planning is intended to be the dialogue between central and local levels. Plans prepared only at central level would lack detailed knowledge and not involve, educate and politically activate the workers. On the other hand, plans prepared only at decentralized level would lack central coordination. Therefore, the principle is to coordinate the two approaches into a consolidated whole taking into consideration all information and constraints.

Therefore, before the Ministry of Agriculture presents its final proposal to CNP, plans by sub-sector and type of activities, provinces and social sectors have been discussed within the Ministry, at the level of the Units of Direction and the enterprises under their direction, within Provincial Governments and at production unit and district levels.

In addition to the regular cooperatives and State and private enterprises it should be noted that a number of special enterprises and projects in the agricultural sector exist, whose plans are normally incorporated in the overall plan of the Ministry of Agriculture, but in the case of the agro-industrial centre (SERLI) in Limpopo only in the final plan document prepared by CNP.

State and private enterprises are normally subordinated to the units of direction and as such it is this entity which has the overall coordination responsibility for the particular type of activity. However, it should be noted that consultations between provincial directors of agriculture (DPA) and the enterprises should take place. In relation to the cooperatives the planning is mainly on a provincial basis with the DPA in a key function.

Major problems encountered in relation to the planning process include that the methodology needs further elaboration. The methodology used certainly provides a conceptual framework, but has been prepared at the CNP level and so far with little or no adaption to special needs in the relevant sub-sectors. This leaves lower levels to exercise a considerable degree of interpretation resulting in widely differing results.

It may also be noted that even if considerable progress has been realized in the planning exercises so far carried out, considerable delays are being experienced in the finalization and approval of plans. This has serious consequences for the possibility of using the plan to direct the actual activities carried out.

Another issue relating to the planning has been the essential role of physical targets. There is a strong emphasis on physical volumes which may be justified when internal consumption is planned, but hardly in relation to exports where the objective is increased export earnings.

It was mentioned above that the dialogue between higher and lower levels is important, but so far lower levels have had a relatively limited impact on the establishment of targets which have in general been very optimistic. In practice it has, therefore, often been the case that the targets have been felt as instructions from higher levels resulting in criticism. Regarding the level of targets it is obviously true that care must be taken not to set targets lower than actual capacity. However, it may also be pointed out that too optimistic targets can create frustration and inadequate feedbacks with a negative influence on production. Another important aspect in this regard is that too big a gap between planned and real production considerably reduces the value of the plan as a practical tool in operational matters.

4.2.2 Big Development Projects

Within the agricultural sector a number of very large projects are included in the plan for the 1981-90 decade with the perspective of contributing in a decisive manner to resolve the basic problems encountered in agricultural production. The following production projects play an essential role in the plan:

i. Agro-industrial complexes in Lioma, Angonia and Matama;
ii. An agro-industrial complex in the Limpopo-Incomati Region;
iii. Projects in Zambezia (the Valley and Milange);
iv. A 120 000 hectare maize project in Sussundenga;
v. Large scale cotton projects in Nampula and Cabo Delgado;
vi. A forestry complex in Manica (Ifloma).

These projects which are in various stages of preparation and implementation receive assistance from a variety of countries and institutions including AfDB, Bulgaria, China, Rumania, DDR, USSR, Sweden and BADEA. The areas to be cultivated are up to about 300 000 hectares in size.

To further illustrate the approach the following more detailed information on two of the projects can be noted.

The fertile valleys of the Limpopo and Incomati rivers were chosen by the colonial administration during the fifties for the establishment of large settlement schemes of Portuguese immigrants. In the Limpopo valley an irrigation scheme was constructed for a large number of medium and small farms which would specialize in rice production. An agro-industrial complex was built for the processing of rice and other cereals and also for dairy processing. A similar scheme was built in the Incomati Valley.

Following Independence where all the farms and processing plants were abandoned the Government established State farms which took over the responsibility for production. It is now planned that the production infrastructure will be further developed including rehabilitation and expansion of the irrigation systems.

The area is being developed with extensive assistance from Bulgaria and the USSR and plans include the establishment of agro-industrial complexes, dams, communal villages, houses, high-tension power lines, primary and secondary schools and a polytechnic school.

The projects in addition to the production of e.g. rice will become centres for diffusion of technology to the cooperatives and private small farmers, and will have important responsibilities for social welfare as well.

Agricultural activities in the Angonia region were initiated by the Portuguese in 1969 and large private farms were established. Several of these farms continue to remain in private expatriate hands.

The agro-industrial complex in Angonia (CAIA) developed out of some 13 private farms which were left and taken over as a State farm in 1976. Plans have been developed for further expansion of the cultivated area with major assistance from Bulgaria.

4.3 INTERNATIONAL COOPERATION AND ASSISTANCE

4.3.1 SADCC and TCDC

Some general background information on SADCC was included in Section 1.6 and it should be noted that areas which would benefit from regional cooperation include food security, agricultural research and animal health. The importance of this development to the agricultural sector and the work of FAO is obvious. The TCP project (TCP/RAF/2202) approved in January for preparation of project proposals in the establishment of an early warning system for regional food security is a direct expression hereof.

A more recent development explicitly linking the SADCC with the concept of technical cooperation among developing countries (TCDC) based on the Buenos Aires Plan of Action of September 1978 took place in late 1981 in a meeting from 30 November to 4 December in Salisbury. The meeting was attended by representatives of SADCC member Governments, UN organizations, regional organizations and a non-governmental organization.

The meeting organized by UNDP was intended to explore the various ways in which the SADCC member countries could promote TCDC activities among themselves. It was agreed that TCDC matters at the subregional level should be dealt with by SADCC and a long list of recommendations was drawn up including the following subjects:

i. Exchange of information including journals and publications and southern African documentation and information service;

ii. Rural development including CIRDAFRICA, telecommunication in rural areas, rural settlements and resettlements planning, management of rural development projects, rural sanitation, tree legumes and nitrogen fixation, and drinking water supply in rural areas;

iii. Food production, processing and marketing including improved seed varieties (maize, sorghum, millet), animal disease prevention and control (trypanosomiasis, rinderpest and tick-borne diseases), wheat and composite flours, animal traction,

production of rice and oil seeds, livestock and pasture improvement, research, management and production, research training for increased fish production, food monitoring and early warning system, national and regional food reserves, food security, trade and oil in food, prevention of food losses and nutritions baby foods and food processing preservation;

iv. Science and technology for Development including food processing, fisheries research, national and subregional documentation centres, mapping techniques for land use planning and scientific research institutions.

In keeping with the below mentioned Nairobi Recommendations it was reconfirmed that countries of Southern Africa are urged to use up to ten percent of their IPF or US$ 7.5 million (whichever is less) for the financing of TCDC activities.

It may be stressed that the Salisbury meeting was a direct outcome (i.e. a subregional TCDC meeting for Southern Africa) of the May 1980 Nairobi meeting (also organized by UNDP) on rural development, food production, processing and marketing and science and technology for development.

The Salisbury meeting was, furthermore, consistent with the policies implicit in the Lusaka Declaration (cf. Section 1.6) and in harmony with the OAU Lagos Plan of Action of April 1980 which incorporates action following the same lines as those of the Africa Regional Food Plan (AFPLAN), prepared at an earlier stage by FAO in collaboration with OAU and ECA.

Follow-up in the above regard in relation to Mozambique has i.a. included missions from the Joint ECA/FAO Agriculture Division. However, comparing the list of areas discussed at the Salisbury meeting given above with the review of the FAO Programme in Mozambique in Chapter 5 also gives a clear picture of interrelations. It may finally be noted that Mozambique has joined CIRDAFRIC/ in April 1982.

4.3.2 International Assistance

Over 40 countries in addition to international institutions and solidarity groups have signed some form of mutual cooperation and development assistance agreement with the Government of Mozambique. The list of cooperating countries includes Algeria, Angola, Botswana, Brazil, Bulgaria, Canada, Cape Verde, China, Congo, Cuba, Czechoslovakia, Democratic People's Republic of Korea, Denmark, Federal Republic of Germany, Finland, France, German Democratic Republic, Guinea Bissau, Guinea-Conakry, Hungary, India, Iran, Italy, Jugoslavia, Kuwait, Lesotho, Libyan Arab Jamanhiriya, Madagascar, Netherlands, Nicaragua, Nigeria, Norway, Pakistan, Portugal, Rumania, Sao Tomé and Principe, Spain, Sweden, Switzerland, United Republic of Tanzania, United Kingdom, Union of Soviet Socialist Republics, United States of America, Vietnam, Zaire, Zambia and Zimbabwe.

Mozambique also receives assistance from numerous NGOs including Terre des Hommes, Inter-church Coordination Committee for Development Projects (ICCO), Caritas Mozambique, Christian Council, Lutheran World Federation and Red Cross.

4.3.2.1 Socialist Countries

The FAO Office is not in a position to provide a complete picture of the form or amounts of assistance received from socialist countries. Information is published in the newspapers and the monthly news bulletin AIM, but an overall review is yet to be made.

However, the comments on big development projects in Section 4.2.2 above and the amounts of external resources to the 1981 State Investment Programme in Section 1.5.4, give a preliminary indication. In addition, it may be presumed that most of the assistance received has consisted of medium term credits that will be repaid out of future agricultural production in the form of unrequited exports. The magnitude of this assistance is very large.

4.3.2.2 Europe and America

The assistance to Mozambique from non-socialist countries in Europe and America has taken various forms running from relief for refugees and import financing to technical assistance. The supply of food and assistance to agriculture are of major importance.

Appendices 2 and 3 give a detailed overview of selected food and project assistance received by Mozambique in 1980. As is clear from Appendix 2 the MONAP programme financed by the Nordic countries is of major importance in the agricultural sector.

The programme consists of 23 individual projects including:

FAO Code	MONAP Code	Project Title
GCP/MOZ/023/SWE	CO - 1	Agrarian Cooperatives Development;
GCP/MOZ/024/SWE	CO - 2	National Programme of Farmer Training;
GCP/MOZ/010/SWE	CR - 1	Seed Production;
GCP/MOZ/011/SWE	CR - 3	Vegetables Maputo;
GCP/MOZ/006/SWE	FI - 1	Coastal & Inland Fisheries Dev't;
-	FO - 1	Afforestation Manica;
GCP/MOZ/007/SWE	FO - 2	Afforestation Maputo;
GCP/MOZ/025/SWE	FO - 4	Afforestation Sofala;
-	FO - 5	Afforestation Nampula;
-	FO - 6	Restoration of Forestry Production Enterprises in Sofala - Manica;
GCP/MOZ/026/SWE	FO - 7	Small Scale Forest Industries for Communal Villages;
GCP/MOZ/014/SWE	IR - 4	Development of Small Scale Irrigation - Sofala Province;

FAO Code	MONAP Code	Project Title
GCP/MOZ/013/SWE	GE - 1	General Support;
-	LI - 5	Milk Chimoio;
GCP/MOZ/018/SWE	LI -13	Veterinary Research Institute;
-	LI -14	Milk Lioma;
-	LI -15	Milk Maputo;
-	LI - 2	Administration and Technical Support to MECANAGRO;
-	ME - 3	Acquisition of Spare Parts;
-	MI - 1	Agricultural Marketing;
GCP/MOZ/019/SWE	MI - 2	Support to the Organization of the Cotton Sector;
-	TR - 1	Umbeluzi/Boane Training Centre;
-	TR - 4	Agricultural Schools.

FAO is the executing agency for a substantial part of this programme (cf. Chapter 5) and relevant codes have been given above.

4.3.2.3 International Organizations

The following international organizations have representations in Mozambique: UNDP, FAO, WFP, UNFPA, UNICEF, UNHCR, and WHO. In addition Mozambique has received assistance from International organizations as the African Development Bank (AfDB) and BADEA in addition to the NGOs mentioned in the introduction to Section 4.3.2.

IFAD assistance is forthcoming and reference to recent missions i.a. including staff members from the FAO Investment Centre can be made.

Assistance from UNDP is provided under an IPF of US$ 74 million for the 1982-86 cycle. The balance programmed for is distributed as indicated in Table 18, below.

Details on activities of other UN activities in general are forthcoming with the preparation of the UNDP document on development assistance to Mozambique, but this document is still awaited. However, detailed information on assistance from FAO and WFP is given in Chapter 5 under the review of the FAO Programme.

Regarding AfDB assistance the following projects have been financed: Central northeast highway, tea rehabilitation project, agricultural project of Lioma, feasibility study for Irrigation, citrus development project and the Zambezi Valley cotton and food crops project. AfDB appraisal of a livestock development project is underway. The assistance from BADEA goes to the forestry sector of Manica, also receiving assistance from Sweden.

The information in Section 1.5.4 on the contribution of external resources to the State Investment programme in 1981 may be consulted for some sectoral information on foreign assistance in 1981 from international organizations including Terre des Hommes. In addition Appendices 2 and 3 contain

further details on international assistance to Mozambique in 1980 and food aid including the assistance from the other NGOs mentioned above.

Table 18

FINANCIAL DISTRIBUTION OF UNDP PROGRAMME, BY SECTOR

Sector	Ongoing Projects	New Projects	Sectoral Earmarkings	Total
Natural Resources	2 453 000	7 270 000	-	9 723 000
Agriculture, Forestry, Fisheries	9 162 000	14 455 000	-	23 617 000
Industry	141 000	6 980 000	2 334 000	9 455 000
Transport and Communications	1 256 000	3 600 000	-	4 856 000
Human Settlements	155 000	2 563 000	-	2 718 000
Health	981 000	3 000 000	3 000 000	6 981 000
Education	3 316 000	-	5 370 000	8 686 000
Other Sectors	363 000	190 000	-	553 000
Total	17 827 000	38 058 000	10 704 000	66 589 000

Note: FAO activities are not only classified under agriculture, forestry and fisheries.

Source: UNDP (1982)

5. STATUS OF THE FAO PROGRAMME

5.1 ESTABLISHMENT OF THE FAO OFFICE

An FAO Representative was appointed in April 1980. Ten months later the Government made available a house for his office which required considerable repairs and some minor rebuilding. These were completed by mid-1982. The FAO office is now established in adequate and presentable premises with all the necessary facilities.

The staffing in the FAO office was also completed in mid-1982 and is now composed of the FAO Representative, a Programme Officer, an Administrative Assistant, an internationally recruited Secretary and seven locally recruited General Service staff, including three typists, two drivers, one messenger and one guard/cleaner. In addition there are two Associate Experts assigned to the office.

The Government contributes the equivalent of US$ 3 000 to the annual budget of the FAO office in Maputo. In addition it has provided most of the furniture and spent the equivalent of some US$ 25 000 on the repairs of the office.

5.2 REGULAR PROGRAMME ACTIVITIES

The impact of the Regular Programme activities on Government efforts cannot be defined in very precise terms because the functioning of an FAO office in Mozambique is a new experience and this is still going through its initial stages. Immediately after Independence a number of large-scale UNDP funded projects were initiated, most of them as emergency operations designed to avoid a further deterioration of agricultural production without a clear development strategy. The operation of these projects suffered from a number of difficulties and above all from misunderstandings between both the Government and the FAO project staff concerning the role of FAO personnel in government programmes. The MONAP Programme established in 1976 went through similar processes with the additional difficulties emanating from the fact that a new type of FAO field staff (FAOPAS) was established for the specific purposes of the Mozambican Nordic Agricultural Programme where the project personnel recruited by FAO have to serve as Government employees. The day to day need for support to these projects has been a major concern of the Government officials who on the other hand are not yet fully acquainted with FAO Regular Programme activities. However, significant progress has been achieved and the higher government authorities are now more aware of the relevance of the FAO Regular Programme to Government efforts to develop the agricultural sector. A further and substantial improvement in this understanding is expected now that the FAO office in Maputo has been fully equipped since mid-1982 to carry out its functions.

Working relations are maintained with the Ministry of Agriculture, Ministry of Foreign Affairs, the National Planning Commission, the Ministry of Internal Commerce, the Ministry of Industries and Energy, the Ministry of Ports and Surface Transport, the Ministry of Public Health and the Secretariats of State for Cotton and Cashew.

Cordial and fruitful working relations are maintained with UNDP, WFP, UNICEF, UNIDO, WHO and UNHCR offices in Maputo. Contacts are maintained with the diplomatic representatives in Maputo, particularly with those from donor countries funding FAO field projects in Mozambique.

5.2.1 General Support and Visits

Support from the FAO Regular Programme has been received mainly through a number of missions which are mentioned below except for those from the Investment Centre which are discussed in Section 5.2.2 where a complete review is given.

The following is a selective overview of some of the assistance received between January and June 1982.

The Administrative Services Division (AFS) gives most useful assistance, particularly with regard to registry operations.

The office of Programme, Budget and Evaluation (PBE) assisted in connection with the formulation of a monitoring system for projects operated under MONAP.

The Office of Special Relief Operations (OSRO) has provided continuing support on a number of relief operations including the visit of an operations officer from 13-17 March and a two-man mission visited Mozambique from 21 June to 10 July to assist in assessing the food situation in the drought affected areas, to establish the needs for rehabilitation of small farmers and to provide logistic support to distribution of food aid and seeds provided by WFP and FAO respectively. The need for further assistance to support the Mozambican Committee for Prevention and Combat against Natural Disasters was defined and follow-up action has been initiated.

The Legal Office (LEG) provided support including the visit of the Chief of the Legislation Branch in connection with national and international water resources legislation.

Administrative and financial support is given by the Payments Operations Group (AFFP) and the Accounts Branch (AFFA) which is required particularly in view of the rather complicated banking procedures and accounts. The FAO office has to operate with three imprest accounts, one in local currency and one in foreign currency in Maputo and the third in Emalangeni in Swaziland.

The Agricultural Services Division (AGS) provided assistance in connection with a TCP project for the rehabilitation of agricultural industries.

The Commodities and Trade Division (ECS) provided technical back-stopping in connection with a food security and early warning system.

From the Animal Production and Health Division (AGA) visits were made regarding the regional project on tick and tick-borne disease control at the end of February 1982 and an ISCDD mission visited the country from 2 February to 3 March to assist in planning a dairy development programme and in coordinating national and international aid with the special aim of including the development of the dairy sector in the PPI including WFP assistance.

From the Land and Water Development Division (AGL) a staff member visited Mozambique at the end of April to review the Biological Nitrogen Fixation (BNF) project.

The Plant Production and Protection Division (AGP) was involved in the work of the mission on the early warning system which visited Mozambique in May/June 1982.

The Development Department (DD) has provided a wide range of assistance including the support from the Investment Centre which is discussed in Section 5.2.2. The Field Programme Development Division (DDF) gave continuing support. The Senior Adviser from the Decentralization Unit visited Maputo during the first half of May. The TCP Unit (DDFT) and the Special Programmes Liaison Service (DDFS) have supported GCP Associate Expert activities in the office of the FAO Representative.

From the Economic and Social Policy Department (ES) varied support has been given, specifically the participation of staff from ESC and ESS on early warning and food security as well as a visit from ESP in April, while ESN assisted in the preparation of the food quality control and hygiene project. ESH has given active support including back-stopping on the preparation of World Food Day activities and the visit of the Rural Development Officer from 2-8 May to provide briefing on the WCRRDD follow-up programme in Mozambique.

From the Fisheries and Forestry Departments support was given in the first half of 1982 and was concentrated mainly on the field programme, which is discussed in Section 5.3.

Regarding Regular Programme support from the Department of General Affairs and Information (GI), a mission was undertaken from 27 February to 4 March to assess the needs of Mozambique for agricultural documentation and information. In addition, the Library and Documentation Systems Division (GIL) provided bibliographies and FAO books and publications.

Follow-up of the Lagos Plan of Action was supported by a visit from the ECA/FAO Joint Agricultural Division at the end of March and the FAO Regional Office for Africa (RAFR) has provided general support. It can finally be mentioned that the Economist from the Joint FAO/ECLA Agricultural Division participated in the ISCDD mission mentioned above.

5.2.2 Investment Centre Activities

A number of missions have been fielded by the FAO Investment Centre. The following reports have been prepared:

i. Project of Development of a Fishery Harbour at Beira, May 1977 (Draft and Not for Distribution);

ii. State Farm Projects: Identification/Reconnaisance Report, December 1977;

iii. Citrus Development Project: Preparation Report, April 1980;

iv. Zambezi Valley Cotton and Food Crops Development Project: Identification/Preparation Report, March 1981;

v. Livestock Projects: Identification/Preparation Report, December 1981.

In addition to the above the following activities have been undertaken and final reports are awaited:

i. Mission fielded for IFAD in February/March 1982;

ii. Mission fielded for AfDB in May 1982 to identify a cashew project.

It may, finally, be mentioned that an IC-staff member visited Mozambique in December 1981 to discuss possibilities of financing investments in establishing small-scale sawmills and crate production plants. The report about this part of the mission was drafted in April 1982; but not submitted to Government as yet. On the basis of a request from the Team Leader of the MOZ/76/007 Forestry Project the report may be revised.

As regards the two proposals from 1977 the following observations may be made.

The Fishery harbour project was based on a mission which visited Mozambique in February/March 1977. The mission found that the Government had changed its priorities as compared to the request for studying the construction of fishery harbour facilities within the ports of Angoche and Beira, as Angoche was no longer considered. The project in Beira had not yet been fully identified and as such could not be appraised, but the mission attempted to develop a revised project. The objectives defined were to combine continued preparation of the project with subsequent construction.

However, the report was as indicated above never submitted and has therefore not entered in Government's considerations. Some work has been carried out in Beira, but independently of the Investment Centre mission. No direct follow-up can therefore be noted.

In relation to the State farms project the report was based on a mission which visited Mozambique in July/August 1977. The mission was to assist in the planning of a number of agricultural projects in the State sector. A list of 14 projects was originally presented by the Government in wide ranging fields of agriculture (tea, citrus, rainfed and irrigated farming plus livestock projects in poultry, cattle raising and dairying). Most of these projects had already been started but without proper planning. The mission visited all but two of the projects, and 16 projects were considered. However, the level of detail was not (except in one case) the same as usually given at project identification due to lack of time.

One project (in tea rehabilitation) was identified and recommended for financing, five were proposed for further discussion and considered suitable for preparation, and the remaining ten were recommended for further review at identification level before preparation (four of these were not accorded priority for development). It is difficult to thoroughly review the follow-up of the report; but two aspects can be mentioned. Firstly, the report is no longer considered by FAO, and direct FAO/AfDB involvement in the follow-up has not been requested. Secondly, several of the projects had as already mentioned been initiated and have been continued and form an essential part of Government's overall development programmes where emphasis is also given to State farm development due to their potential for recouping production.

About the citrus development project it may be noted that the project has been approved for financing and is approaching implementation, probably in 1983.

A project for the rehabilitation of citrus orchards in the Maputo area was identified in August 1977 by the State farms mission, and an Investment Centre mission visited Mozambique from 11 to 30 November 1979 to prepare this project. However, it was found that the project was no longer relevant due to work already carried out by the State Corporation for Citrus, lack of water and diseases.

Therefore, the mission identified and prepared a new project for the development of a 1 000 hectare citrus plantation near Magude in the Maputo Province to produce for export. This was later adjusted to include a food crop component of 200 hectares to meet the food needs of the workers on the plantation.

The project plantation is to be established in three yearly phases of respectively 200, 400 and 600 hectares. At full development, following a 13-year growing period the expected annual production is expected to reach 36 500 tonnes of lemons, oranges and grapefruits (of which approximately 75 percent is expected to be of export quality) plus 330 tonnes of maize, 40 tonnes of beans and 50 tonnes of sunflower.

Total investment costs of the project are US$ 15.4 million of which 58 percent is in foreign currency.

The Zambezi Valley cotton and food crops project which was approved in the end of 1981, originally involved an Investment Centre mission which visited Mozambique in October/November 1980 at the Government's request.

The report of the mission presents proposals for the development of 50 000 hectares of mostly extensive cultivation in the Zambezi Valley area. The objective of the proposals is to increase cotton and food crop production in both the State farm, cooperative and small holder sectors, and organizing the presently scattered population within self-sustaining communal villages.

Although State farms and production cooperatives are included in the proposals the mission considered their development constrained by factors such as the time required to develop varieties adapted for mechanical harvesting, lack of necessary skills, etc. Therefore, the project proposals centre principally on extension to the small farmers and on the establishment of a marketing network with a view to promote not only the production of seed cotton but that of food crops as well.

Project components include i.a. all necessary investments to mechanize 3 000 hectares of State farms, 1 000 hectares of cooperatives and the provision of assistance to about 16 000 small farming families and the means to regroup 24 villages into communal villages.

The report considers that the above proposals form a single integrated operation implying the impossibility of dividing up the project in separate parts. However, the above deviated from Government's original plans inverting the order of priority between State farms and cooperatives and small farmers, and constraining the possibilities for assistance from the French 'Caisse Centrale de Coopération Economique' (CCCE) originally foreseem.

The project has subsequently been revised, and the project now approved by the AfDB/ADF has a different emphasis and content. It is to be seen as being parallel to and integrated with a project to be financed by CCCE, and covering a larger area than originally planned. The French CCCE will finance State farm development ginneries rehabilitation, some general infrastructure and technical assistance, whereas the AfDB/ADF project will organize and develop some 50 communal villages totalling 12 500 families. It would in particular establish water distribution facilities and basic infrastructure in each village, support agricultural development with land investments, equipment, inputs and credit, provide transport facilities and create health centres. The overall total is US$ 15.4 million.

The TCP project (TCP/MOZ/0104 - Physical Planning of the Zambezi Valley Rural Development Project) discussed in Section 5.3.3.2 is intended to assist in the crucial physical planning aspect on the basis of which the villages will be located.

The livestock project identification/preparation project is based on an FAO Investment Centre mission which visited Mozambique in November 1981. The mission was the result of a Government request to AfDB for assistance in the preparation of a foot and mouth disease programme including institution building and vaccine production. Upon arrival Government also requested proposals for the development of the traditional family sector complemented by foot and mouth disease control.

Consequently the mission looked into two projects, a livestock development project at the identification stage and a foot and mouth disease control project at preparation stage.

The main objective of the livestock development project is to increase and accelerate beef production mainly in the traditional family sector and lay foundations for subsequent communal use of resources. The project would give support for essential infrastructure including water supplies, dips or spray-race establishment, fencing and range management in selected areas in the Magude area. Each area would be based on a grazing association consisting of about 130-150 cattle owning families with approximately 25 cattle on average.

The total costs of this five year project would depend on the number of associations, but some US$ 200 000-250 000 would be the cost of one association.

The foot and mouth disease project would aim at reducing foot and mouth disease in the south of Mozambique and lay the foundation for the eradication of the disease in the country.

This three year project would provide for import of vaccines, transport facilities and institutional support costing some US$ 1.6 million with a foreign exchange component of 85 percent.

The report has been submitted to Government for consideration and follow-up. The AfDB is preparing an appraisal mission for the foot and mouth disease project; and the livestock development project has to be fully prepared. Before preparation, a land utilization survey, a socio-economic survey of human population, an investigation into water supply systems and an investigation of reasons of low incidence of liver flukes have to be carried out. This will be undertaken in a TCP-assistance project in the TCP pipeline (cf. Section 5.3.4.2).

The mission fielded for IFAD was a follow-up of a number of IFAD project identification missions. The mission visited Mozambique to identify a family farm development project in February/March 1982. The report is awaited.

The cashew Investment Centre mission visited Mozambique in May/June of this year with the objective of identifying a project for cashew production and rehabilitation to be submitted to AfDB for financing. The Secretariat of State for Cashew had prepared a good programme for the visit and as soon as the Mission Leader had arrived in the end of May visits were made to Cabo Delgado, Nampula and Zambezia. The report is now awaited.

5.3 FAO FIELD PROGRAMME REVIEW

5.3.1 Introduction

FAO technical assistance activities in Mozambique are currently carried out under the following programmes:

i. United Nations Development Programme (UNDP);
ii. Technical Cooperation Programme (TCP);
iii. FAO/Government Cooperative Programme (GCP), including inputs to the Mozambique Nordic Agricultural Programme (MONAP);
iv. Food Security Assistance Scheme (GCPS);
v. Office of Special Relief Operations (OSRO).

In addition, assistance has been provided under:

i. International Fertilizer Scheme (IFS);
ii. Prevention of Food losses (PFL);
iii. Biological Nitrogen Fixation (BNF);
iv. International Scheme for Coordination of Dairy Development (ISCDD);
v. Seed Improvement and Development Programme (SIDP);
vi. Artificial Insemination and Breeding Development Programme (AIDP);
vii. International Meat Development Scheme (IMDS).

Finally, a number of global regional and sub-regional projects and the WFP activities are part of the FAO supported field programme.

The overall total value of donor contributions to the FAO field programme in Mozambique for the more than 30 ongoing national projects at the end of June 1982 amounted to almost US$ 41 million with UNDP accounting for US$ 18.6 million or 45 percent, MONAP for US$ 13 million or 32 percent and others (including OSRO, GCPS, TCP and the Associate Expert Scheme) for approximately US$ 9.1 million or 23 percent.

However, it should be noted that while the length of the UNDP Programming Cycle is five years and that of MONAP so far has been three years other projects are of a much shorter duration ranging in general from one month to one year. Furthermore, other projects are based on continuous programming. Therefore, on a yearly basis the distribution between the three groups is approximately one-third for each.

In terms of personnel there were 32 FAO/MONAP experts (plus four associate experts), 41 FAO/UNDP experts (plus ten associate experts) and two FAO experts in the GCPS and TCP Programmes in post. This total of 87 professional staff (73 experts plus 14 associate experts) is to be compared with established posts for 102 professionals (81 experts and 21 associate experts). There were four internationally recruited general service staff members in post. Some 20 consultants under the various field projects visited Mozambique between January and July 1982, and about 25 consultants to non FAO projects under i.a. ECA, SIDA, DANIDA and IFAD also contacted the FAO Representative.

During the first six months of 1982 visits were undertaken by the Chief of the Africa Service in the Agriculture Department and also the Country Projects Officer visited Mozambique. The visits took place in the months of May and June. The Project Operations Officer in the Fisheries Department took part in the evaluation mission of the GCP/MOZ/006 Coastal and Inland Fisheries Development project which took place in April-May.

5.3.2 Completed Projects

The following projects have been completed and will be reviewed below:

i. MOZ/78/006 Rural Development Consultancy;
ii. MOZ/80/026 Strategy and Project Formulation for the Agricultural, Forestry and Fisheries Sectors;
iii. TCP/MOZ/0003 Supply of Vegetable Seeds;
iv. TCP/MOZ/9001/3 Control of Grain Eating Birds;
v. TCP/MOZ/8905 Duck and Rabbit Raising;
vi. OSRO/MOZ/802/NET Emergency Seed Supply;
vii. IFS/MOZ/001 Supply of Fertilizer;
viii. PFL/MOZ/001 Evaluation of Grain Storage at Farm and Village level.

5.3.2.1 UNDP

Under MOZ/78/006 - Rural Development Consultancy (total approved UNDP contribution US$ 42 846) two missions were carried out in 1978 to advise the Ministry of Agriculture on overall development strategies. Subsequent missions were postponed and finally the project was not extended into the Third Cycle 1982-86.

The impact of the project is difficult to assess; but it was certainly instrumental in initiating the dialogue between the Ministry of Agriculture and FAO on rural development strategies, and was closely related to the internal FAO Inter-Divisional Working Group on Rural Development in Mozambique.

The MOZ/80/026 - Strategy Review and Project Formulation Mission (total approved UNDP and FAO contributions US$ 65 568) produced an overall analysis of the agricultural, forestry and fisheries sectors of the Mozambican economy in addition to the formulation of 27 projects. The mission report was submitted to Government on 4 December 1981. Eleven out of 27 projects formulated are included in the UNDP Country Programme 1982-86.

As regards follow-up of the Mission Government accepted the report as the pipeline and may now request FAO assistance in identifying potential donors for some of the projects not included in the UNDP Programme. The Government is, however, still in the process of defining priorities, and the report requires updating.

5.3.2.2 TCP

Under TCP/MOZ/0003 - Supply of Vegetable seeds (total approved TCP contribution US$ 120 000) 9 337 kgs of vegetable seeds were received from April to June 1980. They were distributed to all the three zones of Mozambique either directly to State, cooperative and private farms or through BOROR or other local wholesale suppliers. The role of the project in supplying a minimum of essential vegetable seeds for the 1980/81 campaign is indisputable.

The TCP/MOZ/9001/2 - Control of Grain Eating Birds project (total approved TCP contribution US$ 250 000) supplied consultancies and spraying equipment during the bird spraying seasons of 1980 and 1981. In addition, in-service training and training of three Mozambicans in a course in Nairobi were provided. The principal objective of the assistance was to reduce the damage on the rice crops caused by birds in the 'Complexo Agro-Industrial de Limpopo' (CAIL) area. Furthermore, the project studied the practicality of extending the control strategy to other areas and assess the need for further studies.

A clear conclusion of the project is that more research in evaluating present spraying techniques is warranted. At present, it seems that much more birdicide is sprayed than is actually necessary. Spraying and killing of birds is only a means to the end of crop damage cessation and increased crop production, and it is necessary to estimate the impact of other factors and the correlation between spray targets and bird damage much more accurately.

A three-year follow-up project was identified and a draft project document prepared by an FAO consultant. The Government is interested, and it would be useful if FAO could indicate a donor for the project.

The TCP/MOZ/8905 - Duck and Rabbit Raising project (total approved TCP contribution of US$ 150 000) had as its original objective to support the promotion of duck and rabbit raising through provision of some essential equipment. However, the duck component was cancelled. All the equipment ordered was received during 1980/81. The final statement of the Director-General was submitted to Government in April 1982 following the receipt of Government's report on the implementation and impact of this project.

5.3.2.3 OSRO

Under the OSRO Programme the project OSRO/MOZ/802/NET - Emergency Seed Supply to Zambezi Flood Affected Areas was completed in 1981. Under the project a total of 214 tonnes of maize seed with a total value of US$ 120 000 were bought. The first 120 tonnes of dressed Katumani maize seeds arrived in Maputo from Tanzania in January 1979. No action on the seeds was, however, taken before May 1980. It was found that the seeds were unsuitable for general distribution due to low germination and insect infestation. It was handed over to Government in end of July.

The next consignment of 80 tonnes from Kenya arrived in March 1979 in Beira. This consignment was in a better condition. Information has not been made available as yet.

For the balance in the project (US$ 10 000) 12 tonnes of Katumani maize seeds, distributed in Tete, and 2 tonnes of Chitedze maize seeds, distributed in Sofala-Manica and to the Agro-Industrial Complex in Limpopo, were bought and arrived in June 1981. A comprehensive report from the Government on the use made of the seeds has not yet been submitted.

5.3.2.4 IFS

The assistance provided under IFS/MOZ/001 - Supply of Fertilizer covers a supply of 745 tonnes of fertilizer, valued at US$ 165 000, which arrived in Mozambique in July 1981.

The fertilizer destined for fertilization of various crops were sold to small scale farmers and the proceeds were deposited with the Ministry of Finance. It has been confirmed that the report is under preparation and will inform on the use of the fertilizer and the proceeds, but it is still awaited.

5.3.2.5 PFL

The PFL/MOZ/001 - Evaluation of Grain Storage at Farm and Village Level project was requested by Government in December 1981.

The project (total PFL contribution of US$ 49 000) aimed at establishing by means of a survey in a number of villages the extent and apparent major causes of post-harvest losses and to prepare an outline of the major elements of a national programme to reduce post-harvest losses at rural level.

The inputs provided consisted of a consultant for three months in addition to equipment. The consultant visited various places in Mozambique in the first quarter of 1982 mainly in the Northern Provinces. A final report with a follow-up project identification is expected to arrive shortly.

5.3.3 Ongoing Projects

5.3.3.1 UNDP

As 1981 was the last year of the Second UNDP Country Programming Cycle, a major change in the UNDP/FAO Programme is underway as projects are coming to an end or are being considerably changed. The latter issue is further discussed in Section 5.3.4, below. However, it should be noted that only the two projects mentioned in Section 5.3.2.1 are fully completed as bridging operations are now linking most new and old projects, which are therefore still in operation.

The following briefly discusses each project and gives the exact status in addition to a brief evaluation of project results achieved so far.

MOZ/75/008 - Livestock Production and Health

This project (total approved UNDP contribution US$ 2.98 million) came into operation in November 1975, a few months after Independence together with other emergency projects such as Crop Production and Land Use Planning.

The objectives of the project were to strengthen the livestock production and health services of the Ministry of Agriculture being essential for the production of meat, milk, poultry and other livestock products.

Although good progress was achieved in a number of technical fields it is nevertheless clear that the project never played the catalytic role originally assigned to it. The project never got fully integrated in Government structures and the institution-building objectives were therefore not achieved. Of relevance to the above it can be noted that there was an acute lack of counterparts and that the organization of work clearly suffered from the effects of a number of experts being terminated or transferred before completion of their assignments.

The project is in the process of being terminated and most experts have already left. However, two experts (Milk Production and Range Management) will only complete their assignments in July of 1982, and the tsetse/trypanosomiasis part of the project will constitute a new project as discussed in Section 5.3.4.1, below.

MOZ/75/009 - Crop Production and Protection

This project (UNDP contribution US$ 4.54 million) was started shortly after Independence and the exodus of the Portuguese research scientists and technicians who left an elaborate network of research and experimental stations covering most agro-ecological zones. The project was designated to provide expertise in the planning and execution of an applied agronomic research programme and to rehabilitate INIA so as to assist the Government in promoting an efficient crop production in modern as well as traditional sectors.

In general, this project did not have the effect originally foreseen and no real link was established between research and production. The project has had a number of difficulties and the lack of a proper team leader after the departure of the first Project Manager left the project without real management and no restructuring of the project took place despite several review missions. It may also be noted that the project suffered from having too many objectives and an insufficient number of counterparts.

The project is now in the process of being terminated; but a follow-up project to support INIA (MOZ/81/014 - Agricultural Research Network), and three projects in the areas of Cotton Extension (MOZ/80/023), Soya Development (MOZ/80/020) and Wheat Development (MOZ/80/011) included in the 1982-1986 UNDP Country Programme have direct links with the MOZ/75/009 project. Some project staff will therefore be continuing in Mozambique whereas others either have or will be completing their assignments.

MOZ/75/011 - Land and Water Use Planning

The MOZ/75/011 project (UNDP contribution US$ 3.37 million) started in the middle of 1976. The objectives of the project were to assist the Government in organizing and equipping the National Service for Soil Surveys and to assist in the organization of a long term development plan of land and water resources, aiming at a balance between available natural resources and the needs for agricultural development.

The organization of a long term development plan was not achieved. It may, however, be noted that the project plays a central role in the assessment of the agricultural potential of Mozambique, through remote sensing and photo interpretation. In addition, it has carried out widely differing operations including detailed surveys in specific areas like Angonia instead of covering the whole country. Following initial problems in the organizing of the work the situation improved with the arrival of the Team Leader in early 1979, but the project continued to suffer from a lack of counterparts. The specialized posts have been adequately filled; but it may be questioned whether the planning aspect was properly covered in view of the original objectives.

These objectives are still relevant, but in the follow-up project (MOZ/81/015 - Land and Water Use Evaluation) emphasis will be on evaluation and not include planning. Some experts did not continue after the end of 1981, others are continuing in the follow-up project and the Tropical Agronomist has been transferred to the follow-up of MOZ/75/009 - Crop Production project.

MOZ/75/012 - Agricultural Statistics

This project (UNDP contribution US$ 471 091) has been hampered in its operation for a number of reasons. The original objective was to contribute to the establishment of an integrated statistical system of agriculture data and prepare national staff to take over at the completion of the project. This objective has not, however, been achieved although relevant work has been carried out by the project. It will be terminating in the course of 1982. The project was seriously affected i.a. by the departure of the first Project Manager and the substantial time gap before the arrival of the new Project Manager. An agricultural census is still pending, and although the need to establish a reliable system of statistical data on the agricultural production is still present it is not as yet clear what the follow-up will be.

The sector is encountering enormous problems due to lack of personnel, nomenclatures and basic recording in addition to the existence of a large number of different agencies with overlapping, and not mutually consistent responsibilities.

MOZ/76/007 - Forestry and Forest Industries Development

The forestry project (UNDP contribution US$ 3.46 million) commenced in February 1977 with a preparatory phase. The main objective of the project was defined to assist the Government in developing an appropriate institutional framework for the forestry sector. The activities included among others planning and organization within the Ministry of Agriculture, field work on forest

inventories, forestry education and training and silviculture.

The project is considered one of the more successful FAO projects under execution in Mozambique. It is well integrated in Government structures (in fact the Team Leader serves as National Director of Forestry) and it has succeeded in establishing the basic institutional framework and has formulated an ambitious development programme for the sector both in the area of reforestation and in that of industrial development. Consolidation of the project achievements is now a major requirement.

The progress of the project has been affected by the difficulties in timely recruitment of experts and also the counterpart situation has given rise to problems. This situation should, however, improve when more educated forestry technicians will be graduating in the not too distant future. To ensure further improvement of the training component a separate project has been formulated to assist the new Forestry Engineering Faculty at the University, starting with a one year preparatory assistance phase. The project presently under implementation has been extended to the end of 1982 and a further extension is included in the new UNDP 1982-1986 Country Programme.

MOZ/77/001 - Marine Fisheries Training and Development

This project (total approved UNDP contribution US$ 1.72 million) was initiated in 1977 and was established to train masterfishermen and engineers to permit the continued operation of the Mozambican fleet and industrial shrimp trawlers. In addition, the project was to contribute directly to the development of fisheries research and give advice on the national development of the fisheries sector. The project has sucoessfully assisted in establishing a fishery school which is now in full operation with 130 students and provided high level advice. The project is well integrated in existing Government structures and has a key role in the development of this important sector.

The staff adequacy has been under discussion as well as the ways and means to ensure that the courses given include sufficient practical training. The Government is, however, satisfied with the performance of the training staff provided by the project and has thoroughly participated in the discussions concerning practical training. It is considered that under the present circumstances and needs of the country the project is developing its training activities satisfactorily, and Government is prepared to support further improvements as these will become feasible. This is so particularly in regard to the timing and organization of practical training with the limited equipment available. Other problems encountered are of a general nature such as low educational level of trainees, lack of counterparts and managers, but solutions are being actively pursued.

MOZ/80/003 - Forestry Vocational Training

This project (total approved UNDP contribution US$ 383 617) which was initiated in end of 1980 has as its objective to establish a forestry vocational training unit and programme covering training of workers and instruction on

sawmill blade doctoring and use and maintenance of manual tools.

The project is closely linked with the large scale forestry project MOZ/76/007 and is presently placed in Nampula. Progress of the project has been severely hampered by lack of construction material and water supply on the project site, and also the design of buildings has given rise to problems. The Project Coordinator arrived in October 1980 and he was joined by an expert in Forest Exploitation Operations in January.

The completion of the project is foreseen to be December 1982 in principle and the post of Sawmill Expert has been cancelled in the last revision. No follow-up project has been identified as yet.

MOZ/80/004 -Slashburn Prevention

This small scale project (total approved UNDP contribution US$ 391 592) was initiated in 1981 with the arrival of two experts. The objectives of the project are to establish a long term plan for fire prevention as a follow-up to the National Fire Campaign in addition to fighting slashburning practices and a training aspect.

The project is like MOZ/80/003 closely linked to MOZ/76/007. The project is approved until the end of July 1982, with a follow-up to the end of 1982 ready for signature. Only one expert will continue, however, and further follow-up will depend on the reassessment of the present situation and recommendations to be made by the project.

MOZ/80/011 - Support for the Development of the Wheat Programme

This project (total approved UNDP contribution US$ 420 730) has as its objective the improvement of wheat production in Mozambique on a pilot basis and training of national staff. The project was initiated in the end of 1980 through a preparatory assistance, originally approved for one year. In March 1981 the project was extended and late that year moved to INIA from UDA.

The project produced 908 tonnes of wheat in 1979/80 on 339 hectares at four locations (mainly in Maputo and Gaza Provinces), in addition to giving assistance to a private farmers. The overall yield was 2.7 t/ha. For 1980/81 the total area originally planned to be planted was 600 hectares. However, due to a number of difficulties including problems with the distribution of seeds and the irrigation system the area was diminished to 414 hectares at six locations, with two of these (in the Maputo and Gaza districts) being the ones which received direct assistance from the project. However, even this area was not achieved. In the end only 257 hectares were producing with a total of approximately 479 tonnes giving an average yield of 1.86 t/ha. However, in the plot in the Maputo Province (Moamba) the yield was less than 1 t/ha and the area in Gaza did not produce at all due to problems especially with flooding.

An appraisal of the project is difficult due to the very different results in the two years. However, it can be said in general that Government appears very positive towards the project. On the other hand serious doubts have been expressed saying that the areas are badly chosen as they in general are prone to flooding and situated in the lowlands rather than dry highlands implying low yields in general. In addition, it has been mentioned that the project has been too concentrated around Maputo, not really supporting other areas in the country. Finally, the question of the actual potential of Mozambique to produce wheat with reasonable costs needs investigation. The project is included in the UNDP 1982-1986 Programme as a two year project terminating in 1983. So far the project has been approved to the end of 1982.

MOZ/80/020 -- Soya Development

This project has as its objective the expansion and encouragement of soya bean development in Mozambique through selection of adapted varieties, seed production, demonstration schemes, technical assistance and extension. Activities in the form of advice to four State farms and Government institutions were initiated already under MOZ/75/009 by the Soya Bean Expert. As from January 1982 he was transferred to MOZ/80/020 together with a UNV under a preparatory assistance agreement (total approved UNDP contribution US$ 124 974).

In 1981/82 some 1 000 hectares were put under cultivation at two locations (Boroma and Nhambita) and research work will continue. Originally 3 000 hectares were foreseen as a [illegible] arrival of equipment led to modifications.

An FAO Soya Bean Consultant visited trial and production plots in April 1982 to assist Government in drafting the follow-up project document.

MOZ/80/023 - Preparatory Assistance Agricultural Extension Nampula

The Expert in Agricultural Extension (Cotton) started his work under this project (total approved UNDP contribution US$ 139 121) in January 1982 after being transferred from MOZ/75/009. The purpose of the assistance is to finance the minimal input required for the initiation of the establishment of an efficient service for agricultural extension in the Province of Nampula where the main field station is established under the State Secretariat for Cotton. The project is closely linked with cotton producing State farms where demonstration plots have been established. Audio-visual methods are being introduced and Mozambican staff trained. The document for the follow-up project MOZ/81/016 is being drafted.

MOZ/80/025 - Citrus Development

This project which started in January 1982 through a Preparatory Assistance (total approved UNDP contribution US$ 96 760) has as its objectives to establish citrus nurseries and support citrus development through training and technical assistance.

The Senior Citrus Expert was transferred from a MONAP project on 1 January and a draft project document for the follow-up project has been formulated. In addition a project site with the appropriate infrastructure for the establishment of a germinating house and an irrigation scheme is foreseen.

5.3.3.2 TCP

The only TCP projects operational in Mozambique at the end of June 1982 are the following:

i. TCP/MOZ/0104 (I) - Physical Planning of the Zambezi Valley Rural Development Project;

ii. TCP/MOZ/2201 - Assistance in Rehabilitation of Selected Agro-Industries.

The TCP/MOZ/0104 (I) Physical Planning project (total approved TCP contribution US$ 165 000) is to prepare a master plan for the establishment of 50 communal villages and preparation of the detailed layouts for the establishment of the first 15 villages so as to assist with the physical planning needed for the Zambezi Rural Development Project receiving assistance from AfDB/ADF. This project is to establish the 50 villages with 12 500 families over a five year period.

The project was approved in November 1981 and the Geographer-Planner arrived in March 1982. In addition the project staff will include two consultants (Hydrology and Socio-Demography) and a draftwoman was included in the last revision in May and is to take up her activities in July.

The project is being executed in cooperation with the National Directorate of Housing, the Secretariat of State for Cotton and the MOZ/75/011 - Land and Water Evaluation project and substantial work, mainly on mapping has been carried out. However, until now the Project Manager has for different reasons only been able to visit the project site once.

The TCP/MOZ/2201 Assistance in Rehabilitation project (total approved TCP contribution US$ 50 000) was originally planned to provide four one month consultancies in the fields of cotton ginnery rehabilitation, small maize mills rehabilitation, sisal production and hegocenin extraction. The objectives are:

i. To prepare a comprehensive list of replacement and spare parts needed for the rehabilitation of cotton ginneries utilizing cotton produced by individual small scale producers and cooperative estates;

ii. To assess the current sisal production programme and its needs for rehabilitation;

iii. To prepare a detailed programme and cost estimates for the extraction and processing of hegocenin from sisal;

iv. To assess the equipment spare part needs, costs and maintenance programme for small-maize milling operations.

The project will in general result in the definition of needs in the above areas and clearly, this may lead to significant follow-up projects. The consultants for the hegocenin extraction and small maize mills have already visited Mozambique.

As regards the hegocenin part two consultancies of two weeks each had been foreseen. However, after the visit of the consultant and reconsideration of the situation, it is questionable whether further follow-up will be undertaken by the Ministry of Health.

The maize milling consultant prepared a well formulated rehabilitation programme for some 750 maize mills, including the establishment of a training centre and four workshops for technical assistance in various provinces and follow-up in identifying a donor would be useful.

The Government Agency responsible, UDRA, is keen to see the project implemented soonest.

The visits of the remaining two consultants are awaited shortly.

5.3.3.3 GCP

The Budget Review concerning the FAO Component of the MONAP II Programme for the years 1981 and 1982 was signed on 23 November 1981. The Agreement indicates that a number of changes took place at the end of 1981 and that some experts have left. All MONAP projects, however, continue to be operational. The following changes have taken place.

The GCP/MOZ/007 - Reforestation in Maputo project will in 1982 have only one FAO expert, i.e. the Machinery Maintenance Expert. The Experts in Silviculture, Charcoal Production, Forestry Extension and Vocational Training have left and the posts are no longer to be filled. As regards the Forestry Planning Specialist the post is now budgeted under the GCP/MOZ/013 General Support project, and the post is planned to be phased out when the contract of the incumbent expires. It may be considered to create a new project including special support to Mademo, but this project idea at present appears rather unlikely to be followed up due to resistance on the part of SIDA.

Under the GCP/MOZ/013 - General Support project the post of Citrus Specialist has been phased out. Included in the 1982 budget are now a Senior Economic Planner post and a Project Monitoring and Evaluation Expert in addition to the above mentioned forestry post. A suitable candidate for the Senior

Economic Planner post has been identified and will arrive in the beginning of July.

In the GCP/MOZ/010 - Seed Production project the Team Leader was terminated at the request of the Government in May 1982, and the only remaining expert is the Seed Quality Control Expert.

The assignment of the Senior Irrigation Specialist in the GCP/MOZ/011 - Vegetable Maputo project was terminated at the request of the Government in August 1981 and only the Horticulturalist remains as FAO Staff Member in this project.

Under the GCP/MOZ/018 - Veterinary Research Institute project the Team Leader has been transferred to a UNDP funded project from mid-1982.

The current MONAP programme consists of 23 projects with a total Nordic contribution of US$ 66 million over the three year period 1981-1983. It has been proposed to extend MONAP II with one year, i.e. 1984 but decisions are yet to be taken. FAO is supporting 13 of the 23 projects and the total FAO component was originally estimated at almost US$ 13 million. A more realistic figure is approximately US$ 10 million for the 1981-1983 period. The total number of professional posts foreseen in the 1982 budget is 36 covering cooperatives, forestry, seed production and quality control, horticulture, irrigation, veterinary health, cotton grading, fisheries, marketing and project identification, formulation, appraisal and evaluation. Three posts are vacant as of 30 June 1982 but recruitment is in progress. The following contain some brief notes on each of the projects with FAO involvement.

However, in relation to the programme as a whole, it may be noted that although progress has been realized there are still serious delays in relation to supply of equipment and construction activities and bottlenecks due to lack of counterparts. It is encouraging that decisive steps towards a better monitoring system are being made. This should improve the overall management of the Programme.

An overall mid-term evaluation of MONAP is now scheduled for end-September and October in addition to a number of individual missions to discuss and review specific projects.

GCP/MOZ/006 - Coastal and Inland Fisheries Development

This project has the largest FAO expert component of all MONAP projects. A total of 11 experts are foreseen in 1982, with at present nine of these in post plus one under recruitment. The total originally approved FAO component is US$ 2.8 million. The objectives of the project are to:

i. Increase the Mozambican fish production;
ii. Increase fish consumption and the nutritional standards;
iii. Create producer cooperatives.

In specific, the project is providing assistance to the Fisheries Development Institute and other Government Institutions in the fisheries sector in the establishment of community fishery complexes, carrying out research programmes on fish resources and catch strategy in selected waters, providing training and transfer of technology connected with use of equipment, maintenance and fish techniques and handling, managing fish culture stations and advising on identification and preparation of projects.

Activities in fish culture, fish technology and investigation of resources are progressing well; and although problems have been encountered due to lack of housing for experts and the supply of equipment the project is not experiencing special problems.

It has been considered if the project could be backstopped more directly and executed by NORAD, but decisions in this regard have not yet been taken.

GCP/MOZ/007 - Reforestation Maputo

This project has as mentioned only one FAO staff from January 1982. The originally approved FAO component is US$ 1.6 million, but it is being cut in accordance with reduction in staff. The objectives of the project are:

i. To create forest plantations in the surroundings of Maputo in order to produce fuel wood and charcoal;
ii. To produce immediately charcoal and fuel wood from the material from cleared areas;
iii. To increase employment possibilities;
iv. To establish communal villages for workers and people living in project areas;
v. To improve socio-economic conditions.

The project has experienced serious problems in relation to foreign staff and organizational aspects and targets have not been achieved in general. A constant shortage of spare parts and construction material has hampered construction work and a silviculturalist is badly needed. The FAO involvement with the project is as mentioned limited now. It remains to be seen whether the important social aspects of the project in the final analysis will justify the very high expenditures on the project.

Economic Planner post has been identified and will arrive in the beginning of July.

In the GCP/MOZ/010 - Seed Production project the Team Leader was terminated at the request of the Government in May 1982, and the only remaining expert is the Seed Quality Control Expert.

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Under the GCP/MOZ/018 - Veterinary Research Institute project the Team Leader has been transferred to a UNDP funded project from mid-1982.

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iv. To establish communal villages for workers and people living in project areas;
v. To improve socio-economic conditions.

The project has experienced serious problems in relation to foreign staff and organizational aspects and targets have not been achieved in general. A constant shortage of spare parts and construction material has hampered construction work and a silviculturalist is badly needed. The FAO involvement with the project is as mentioned limited now. It remains to be seen whether the important social aspects of the project in the final analysis will justify the very high expenditures on the project.

GCP/MOZ/010 - Seed Production

This project with at present only one FAO expert and an originally estimated budget for 1981-83 of US$ 590 000 is based on the need for the development of a national seed programme. Activities were initiated in 1978 with four FAO and four SIDA experts.

Objectives were defined with a view to improvement of production of seeds and elimination of imports. In specific, this involves assistance in:

i. Development of seed production of priority food crops;

ii. Establishment of seed processing plants in selected locations throughout the country;

iii. Establishment of a seed quality control laboratory and service;

iv. Development of a training scheme.

The project has in the past experienced problems in the coordination of numerous activities in the National Seed Enterprise (ENS) and progress is hampered by slow production of new and improved varieties of basic crops. The training programme has been postponed except for the quality control training.

The Project Team Leader recruited by FAO terminated in mid-1982 and the only FAO input is now that of the Expert in Seed Quality Control. This expert has since November 1981 been working independently in the National Institute of Agricultural Research (INIA), and has made considerable progress in establishing a national seed service. A visit from the Seed Service at FAO Headquarters has been scheduled for September-October, which will hopefully lead to clarification on the future involvement of FAO in the Mozambican National Seed Programme. Particular attention should during the visit be given to basic seed production and quality control in addition to an overall discussion and analysis of the present situation in Mozambique. The question of funding the construction of a new Mozambican seed quality control station also needs to be investigated within the near future to ensure a proper continuation of progress realized so far. It may be noted that good quality seeds have been identified as strategic in the Mozambican development process, and that it appears to be an area where increased regional cooperation, possibly in the context of SADCC, could be envisaged.

GCP/MOZ/011 - Vegetable Production in Maputo

This project has at present only one FAO Expert in Horticulture as the Irrigation Expert left in 1981. The total originally approved FAO component was US$ 1.2 million.

The objectives are clearly defined to produce and supply the city of Maputo with fruit and vegetables and to improve the living conditions of the local population. In specific, the project will increase the crop area by

250 hectares and develop alternative crops. In addition, the possibility for new investments will be investigated.

The original production plan of 1980/81, i.e. 9 675 tonnes was clearly unrealistic, and a revised plan of 3 750 tonnes was prepared. The actual production became 2 800 tonnes, i.e. less than 30 percent of the original but 75 percent of the revised plan.

Despite this progress has been realized in construction work and the planning and investigation part of the project are expected to give a sound basis for the development of a State farm (minimum size 900 hectares and maximum size 1 180 hectares) but also of adjacent areas of influence estimated at 2 000 hectares.

GCP/MOZ/013 - General Support

The FAO component of this project has been changing. The originally approved total amounted to US$ 1.3 million and the general objective has been to provide qualified personnel at Ministerial level. Until the end of 1981 the FAO part included a livestock adviser, a heavy machinery specialist and a citrus specialist.

In 1982 the project will include the FAO experts to the newly established Office of Projects and Studies in addition to the forestry component transferred from GCP/MOZ/007 - Reforestation Maputo. It is important to notice the involvement in project identification, preparation, appraisal and evaluation which in the years to come will form an important element of the FAO involvement in the Mozambican development process.

GCP/MOZ/014 - Development of Small Scale Irrigation Sofala Province

This project has an originally approved FAO component of US$ 0.9 million. Two experts and two associate experts are in post.

The background for the project is two separate projects on drainage of Beira and irrigation in Buzi. They were consolidated into one project and at the end of 1980 a 10 hectare experimental station was established close to Beira. A central workshop with a pool of vehicles, machinery and equipment is available for the maintenance of drainage works around Beira.

Based on these achievements the GCP/MOZ/014 project was started in January 1981 with the general objective of improving production by planning, implementing and organizing small scale irrigation schemes mainly directed to growing food crops.

In specific, the project was to establish the technical and administrative infrastructure necessary for the implementation of irrigation

~~schemes~~, ~~establish~~ a training programme for drivers/operators of vehicles and machines and counterpart staff and develop a trial/demonstration plot.

Activities in 1981 concentrated on establishing the technical and administrative infrastructure in the Provincial Agricultural Office, preparatory work in the Caia area and implementation of the drainage programme in Beira.

However, due to difficulties in operating in the Sofala-Manica Provinces the project has recently concentrated its efforts on the development of green zones around Beira. Furthermore, it is now clear that the two experts will be leaving at the end of their contracts. Replacements are requested, but the project is going to be revised in August and new terms of reference will be prepared.

GCP/MOZ/018 - Veterinary Research Institute

The project began in March 1977 under MONAP Phase I and a total of US$ 1.7 million was estimated as the FAO component in MONAP II. Presently four experts from FAO are in post, as the Team Leader was transferred to another project from mid-1982.

The objectives of the project are to define major diseases and their impact on animal production in Mozambique and to assist the Government in developing a programme for the control of such diseases.

The project is to equip and train technical staff for the proposed interprovincial and provincial diagnostic laboratories, to assist the National Veterinary Institute (INV) and provincial laboratories through in-service training of laboratory personnel, to advise and support game meat utilization projects and to further facilities for the testing of cattle dips and eventually acaricide resistance tests.

Progress is being realized in most areas. Vaccine production and the production of biological reagents is reaching the point at which they are adequate for the needs of the country, the Pathology Department became functional with the arrival of the FAO Pathologist, the epidemiological survey of tickborne diseases and their vectors is under implementation, teaching and in-service training activities are being carried out and construction of laboratories is well underway.

However, problems of supply of materials are periodically hampering vaccine production and frequent break-downs of electricity and the same is true due to lack of distilled water. In the construction programme the provincial laboratories in Ulungue, Beira and Quelimane are almost completed; but the usual problem of lack of materials has been encountered. The major problem for the project is the late arrival of vehicles.

In the upcoming revision of the MONAP Programme a technical review of the project will be needed, and FAO Headquarters support in this regard would be useful to clarify the extent of future FAO involvement.

GCP/MOZ/019 - Support to the Organization of the Cotton Sector

The approved FAO component of this project is US$ 880 000 including three FAO experts. However, it should be noted that the two associate experts under the Agricultural Marketing project with MONAP Code MI-1 belong to the GCP/MOZ/019 project with MONAP Code MI-2.

The overall objectives of the cotton project are to assist the development of the cotton sector by providing material support to the Cotton Institute, organizing a seed multiplication programme, assistance in acquiring spare parts, improving the bulk transport from field to ginnery, studying the commercialization of the cotton, establishing a service for technical documentation and training of fibre graders and laboratory staff.

The following progress may be noted: Assembling of three disinfection machines for seed have been started, an extension centre is working and providing relevant information by radio, training of cotton field inspection controllers has been continued, and field experiments on cotton seed techniques have been carried out. Furthermore, a new standardized bookkeeping system for ginneries has been introduced and a number of courses on various aspects of cotton grading have been given. The main problem encountered is the slow purchase process through MONAP and better coordination between MONAP and the project is necessary in this regard.

Early replacement of the cottnn seed specialist who will be terminating in January 1983, would be of great importance.

The FAO assistance to the Agricultural Marketing project (MI-1) is limited to the associate experts assisting the financial department of Agricom, the Government body responsible for marketing of agricultural produce. Their main activity has been to introduce and implement an accounting system and provide relevant training. These activities have involved considerable support to the provincial delegations of Agricom.

GCP/MOZ/023 - Agrarian Cooperatives Development

The original FAO assistance approved amounted to approximately US$ 50 000 as a preparatory assistance. However, the Consultant was appointed Team Leader of the project. Yet he is the only FAO input in this important MONAP project.

The objectives of the project are to create conditions for the development of cooperatives, especially pilot cooperatives, motivate the family sector on the advantages of agricultural cooperatives, assist farmers in forming cooperative unions, provide training and develop a programme of animal traction.

The project is still in its initial phase and activities have therefore especially been concentrated on meeting basic needs for future development. However, it should be noted that three centres have been established in Namaacha, Mutuali and Temangau, and activities started. Other centres have been agreed upon and will be established in Nampula, Maputo, Tete and Zambezia.

Out of a total of 100 cooperative members who were to be trained in organization, management, planning and basic agricultural techniques 41 were trained in the past year. In addition, a sub-programme in animal traction has been established. During 1981 provincial programmes were elaborated with Provincial Directors of Agriculture in Cabo Delgado, Tete, Inhambane, Nampula, Zambezia, Sofala, and Gaza with the former three already under implementation. A number of seminars on animal traction has also been held.

Furthermore, for purposes of testing an importation of tropicultors (a multipurpose implement carriage) was made during 1981 and local production of 100 is planned for 1982.

As regards the future of the project a bottleneck may be the still rather weak central organization and administration for the very ambitious Cooperatives Development Programme which occupies a key position in the Government's Development Plan for the 1980-1990 decade.

GCP/MOZ/ 024 - Regional Centres for Experimentation and Development

This important project with an FAO component of US$ 1.4 million has an input of four FAO experts.

The overall objective of the project is the encouragement of modern agriculture in the family sector by the involvement of peasants in applied and participatory research. This objective is to be realized through the establishment of twelve regional development centres in a first phase to improve agricultural production and promote the organization of production structures that respond to real needs. The centres should serve as basic level research, demonstration and training centres, as a support to collective agricultural production in the family sector and contribute to the creation of more dynamic relations between the State farm and family sector in Mozambican agriculture.

The project is in its initial phase and has been through a period where the main problem has been to define an operational strategy as the basis for the Programme. Other problems have included slow recruitment of personnel and the general problem of getting supplies and equipment, including vehicles. Also the lack of funds will become a constraint.

Yet, despite those problems the project has succeeded in establishing three centres in Ribaue (Nampula), Moamba (Maputo) and Angonia (Tete) which are now operating. In addition, construction work on three out of five new centres planned for 1982 is underway.

GCP/MOZ/025 - Reforestation Sofala

This project based in the Sofala Province commenced in 1981 after a preparatory phase in 1980 and some work already initiated in 1979. The total approved FAO component is some US$ 240 000 including the only FAO expert in the project in the field of silviculture.

The project has a similar background to that of GCP/MOZ/007. That is, the objective is to increase the well-being of the population which uses charcoal and firewood for domestic use. Immediate objectives are to develop forest plantations of fast growing species for the production of firewood and charcoal, produce charcoal and firewood from the materials from cleared areas, create new employment possibilities, train workers and improve socio-economic conditions. After the arrival of the FAO Silviculturalist activities were organized and progress made towards achieving defined targets.

However, serious problems are encountered in filling national posts and the FAO. expert has had to devote a substantial amount of his time to production activities in the State Enterprise Mademo E.E.

GCP/MOZ/026 - Small Scale Forest Industries for Communal Villages

This project has an overal approved FAO component of approximately US$ 228 000 consisting of a Specialist in Small Scale Forest Industries, who was originally assigned as Consultant.

The general objective of the project is to support the development of communal villages and increase the well-being of their populations. In specific, the objectives are to study in practice the feasibility for small organized industries in cooperative organization, exploit forest residues in a proper way, produce items for use in rural households and increase the technical skills of the peasants who live in the forest areas.

The project has been affected by the changes in orientation of the programme and the lack of technicians, but some progress has been achieved in establishing some three workshops. However, in early 1982 the northern project area became rather inaccessible to the project due to security problems, and also the southern area is now becoming difficult. It may therefore be considered to move the project to another province.

5.3.3.4 GCPS

Within the framework of the FSAS a number of projects have been identified by a food security policy formulation and project identification mission to Mozambique in October 1978 and the execution of some of these started with the assistance of FAO in 1980.

The projects consist of:

i. Grain supply (60 000 tonnes) for food security reserve;
ii. Construction of storage facilities (60 000 tonnes) for food security grain reserve at three locations;
iii. Provision of equipment to 110 buying brigades to strengthen the marketing of food grains;
iv. Provision of 95 trucks to improve grain collection;
v. Establishment of ten mobile stock quality control and stock maintenance teams;
vi. Technical assistance for grain marketing;
vii. Food security programming assistance;
viii. Evaluation and recommendations on post-harvest losses and grain storage at the farm and village level.

So far the following three projects have become operational:

i. GCPS/MOZ/020/SWI - Establishment of Ten Mobile, Stock Quality Control and Stock Maintenance Teams;
ii. GCPS/MOZ/022/MUL - Food Security Programming Assistance;
iii. GCPS/MOZ/022/SWI - Construction of Storage Facilities for Food Security Grain Reserve at Beira (15 000 tonnes);

Furthermore, project number four and eight have been implemented under respectively OSRO and PFL assistance. Project number six has been approved (GCPS/MOZ/027/BEL), but new terms of reference of the marketing expert are awaited.

The GCPS/MOZ/020/SWI - Mobile Stock Quality Control and Maintenance Teams project, initiated in 1980 with a total approved external component of US$ 413 737 has as its objectives to:

i. Establish ten mobile stock quality control and maintenance teams;
ii. Provide a suitable vehicle and other necessary equipment for fumigation and grain quality tests;
iii. Provide practical training in the correct procedures for management of grainsstocks.

The vehicles arrived in the first half of 1980 and other equipment only in late 1980 and beginning of 1981. These delays hampered the implementation of two training courses by two FAO consultants. A consultant visited Mozambique in late 1981 to make an evaluation of the project, and at the end of June 1982 he returned to Mozambique to follow the preparatory work of the buying brigades for the 1982 marketing year. The visit should ideally have taken place earlier as the marketing year starts already in May.

The GCPS/MOZ/021/MUL - Programming Assistance project with a total approved external component of US$ 321 000 was initiated in March 1981 with the arrival of the Expert. The objectives of the project are to strengthen the country's food security planning so as to ensure the availability at all times of adequate supplies of basic foodstuffs. During 1981 the main activities have included the setting up of a food security office in the Ministry of Internal Trade, preparation of statistical data, fact finding missions and participation in negotiations on the food situation of Mozambique. In addition, the expert has been involved in the final design of two of the remaining food security project proposals and an evaluation of GCPS/MOZ/020/SWI, discussed above.

The project has experienced problems in getting properly integrated in Government structures, but recent meetings have defined the project more clearly.

The GCPS/MOZ/022/SWE - Food Security Grain Reserve project with a total approved external component of US$ 2 386 703 is to construct storage facilities for 15 000 tonnes of grain in Beira. The project is part of the proposal for establishing a total of 60 000 tonnes of storage capacity in three locations, Maputo, Beira and Nacala/Nampula. Follow-up regarding the remaining 45 000 tonnes will be required.

The preliminary activities of this project, choice of storage type etc. has been subject to lengthy discussions and some confusion. However, final clarifications imply the choice of silos so the contract may be signed and construction initiated in the near future. A visit to Rome of relevant Government officials took place early this year to clarify outstanding issues.

5.3.3.5 OSRO

Three projects and one mission under the OSRO Programme are operational and the FAO Office has been actively involved in the operations of assistance to Zimbabwe.

OSRO/RAF/001/NET - Emergency Supply of Seeds to Rehabilitation of Production of Domestic Food Crops

The project originally with a total approved contribution of US$ 225 057 has supplied the Mozambican Government with 113 tonnes of bean seed and ten tonnes of vegetable seed. The seeds have been distributed by BOROR to different provinces and sectors in 1981 as already reported to FAO Headquarters.

An additional 100 tonnes of sorghum seeds and 80 tonnes of rice seeds were requested and arrived in respectively December 1981 and January 1982, noting that only 65 tonnes of rice seed arrived. The total approved under the project was therefore increased to US$ 332 871. It can be noted that rice from the Philippines should not be supplied in the future.

A further 200 tonnes of sorghum seeds and 150 tonnes of maize seeds are in the process of being supplied under this project to the drought affected areas in Nampula. The total additional OSRO contribution amounts to US$ 250 000.

The activities under the recent OSRO mission to assess the food situation in drought affected areas were mentioned under regular programme activities. However, it should be noted that the Logistics Officer continues in Mozambique to support the emergency supply of seeds.

OSRO/RAF/002/ALG - Emergency Assistance for the Transport Sector

This project has supplied essential spare parts to existing vehicles belonging to the transport fleet in the food sector under the Industrial Company of Matola. Four consignments have been received and yet another request has come forward. However, Government has been requested to study possibilities for improving coordination of such requests, and the reaction to this awaited.

No project document has been signed according to information from OSRO due to the small amount involved.

OSRO/RAF/003/ITA (MOZ) - Emergency Assistance for the Transport Sector

This project with a total approved OSRO component of US$ 3 414 407 has provided the Government with 95 Fiat trucks, spare parts and technical assistance. Four trainees went on a six week training course in Italy in November-October 1981 and another three went in May 1982.

Under this project the FAO Office has been actively involved in the supply of 60 trucks to Zimbabwe. Unfortunate and long delays in the shipments have been experienced. The trucks are now in Zimbabwe.

5.3.4 Pipeline Projects

The present FAO pipeline in Mozambique is especially affected by the transition period linking the Second and Third UNDP Country Programmes. In addition, however, there are a number of FSAS projects and three TCP projects in the pipeline. Finally, a GCP project (not part of the MONAP Programme) is foreseen to start in 1983. The MONAP Programme will be evaluated by September/October 1982 and there are so far no conclusions on what the coming pipeline will be.

5.3.4.1 UNDP

The final version of the Country Programme of Mozambique was submitted at the end of 1981. The illustrative IPF is US$ 74 million and originally US$ 68.7 million had been programmed for. However, in the end of 1982 it was decided to reduce this amount by 14 percent (equivalent to the original provision for adequate programming). In addition, further discussions and cuts have been undertaken during the first six months of 1982, and no final picture is clear.

It may in this regard be noted that UNDP and Government recently had agreed to change the disbursement schedule over the five year cycle; but it does seem as if this decision is now under reconsideration.

According to the Country Programme the FAO executed projects include the following:

			Assistance in US$
Agriculture:			
MOZ/75/012	Agricultural Statistics	(1 year)	89 000
MOZ/80/011	Wheat Development[1]	(2 years)	718 000
MOZ/80/020	Soya Development	(5 years)	1 132 000
MOZ/80/023	Preparatory Assistance Agricultural Extension Nampula[2]	(1 year)	141 000
MOZ/80/025	Citrus Development	(5 years)	522 000
MOZ/81/013	Tsetse and Trypanosomiasis Control	(5 years)	1 630 000
MOZ/81/014	Agricultural Research Network	(5 years)	4 510 000
MOZ/81/015	Land and Water Evaluation	(5 years)	4 250 000
MOZ/81/019	Veterinary Faculty	(5 years)	1 840 000
	Total Agriculture		14 832 000
Forestry:			
MOZ/76/007	Forestry and Forest Industries Development	(5 years)	4 250 000
MOZ/80/003	Forestry Vocational Training	(1 year)	50 000
MOZ/80/004	Slash Burning Prevention	(1 year)	55 000
MOZ/81/023	Forestry Engineering Faculty	(5 years)	1 440 000
	Total Forestry		5 795 000
Fisheries:			
MOZ/77/001	Fisheries Development Training, Quality Controlland Technical Assistance	(5 years)	4 000 000
	Total Fishery		4 000 000
	Total FAO according to original programme		24 627 500

1/ This project will get a new number, i.e. MOZ/82/005 in Phase II.

2/ Project MOZ/80/023 is not mentioned explicitly as it is included under MOZ/81/016, but the preparatory assistance is executed by FAO.

In addition the following three projects were planned to be executed by Government in the agricultural sector:

MOZ/81/016	- Agricultural Extension in Nampula (excluding MOZ/81/023 mentioned above)	(5 years)	1 880 500
MOZ/81/017	- Agricultural Extension in Nante	(5 years)	1 360 000
MOZ/81/018	- Training in Agro-Technology	(5 years)	3 230 000
	Total Government executed projects in cooperation with FAO (Excluding MOZ/81/023)		6 478 500

However, as already stated, the above information is from the Country Programme and considerable cuts have taken place since in view of the present UNDP financial situation. Final conclusions regarding individual projects are awaited.

The following contains a brief summary of each of the pipeline projects, i.e. excluding MOZ/75/012 - Agricultural Statistics, MOZ/80/003 - Forestry Vocational Training and MOZ/80/004 - Slash Burning Prevention from the above list as they are operational and already discussed in section 5.3.3.1.

MOZ/76/007 - Forestry and Forest Industries Development

This project is as mentioned in Section 5.3.3.1 already operational, but an extension with some changes is foreseen. The project is to concentrate on three specific areas: silviculture and management including research, feasibility studies and projects, and strengthening the industrial sector. The project will, furthermore, continue its support in policy making and planning as well as administration.

The draft project document has been prepared and cleared by FAO but the final version will only be approved in the course of 1982.

MOZ/77/001 - Fisheries Development: Training, Quality Control and Technical Assistance

This project will continue the activities already in operation. However, the project will in its new phase include the establishment of a quality inspection and control service, initially aimed at quality control of exported seafood. A draft project document has been prepared and cleared by FAO. Meanwhile an advance authorization covering 1982 and allowing the extension of all experts has been approved as from 1 April 1982.

MOZ/82/005 - Wheat Development

This project is a phase II of the MOZ/80/011 project under execution and objectives remain the same in general. A draft project document has been prepared covering the period up to June 1985, but approval is awaited.

MOZ/80 /020 - Soya Development

A draft project document for the follow-up of the preparatory assistance already discussed in Section 5.3.3.1 has been prepared, but approval is pending in line with the other UNDP projects.

MOZ/81/013 - Tsetse and Trypanosomiasis Control

The activities of this project were commenced under MOZ/75/008 and are now being carried out under a bridging operation until the new project becomes operational. The objectives of the project are to carry out scientific observation on tsetse and trypanosomiasis infestation and assist the Government in eradicating this disease. The project approval is pending in line with other UNDP projects.

The Team Leader, who has been transferred from GCP/MOZ/018 - Support to the Veterinary Institute from the end of June, will be terminating at the end of 1982, and a new senior technical adviser will have to be recruited as from January 1983.

MOZ/81/014 - Agricultural Research Network

This project has as its objectives to strengthen the National Institute of Agronomic Research (INIA) and to undertake applied field research on major crops with the aim of increasing food production and production of export crops.

The Team Leader recruited for the new project arrived in May 1982 and his post was exceptionally approved for a whole year until mid-1983 to allow recruitment. The draft project document is being prepared.

MOZ/81/015 - Land and Water Evaluation

This follow-up project to MOZ/75/011 will have as its objectives to evaluate land and water resources and contribute to establishment of a national service responsible for the survey of natural resources and evaluation of soil capability.

The draft project document is awaiting approval in line with other UNDP financed projects in the pipeline.

MOZ/81/019 - Veterinary Faculty

The objectives of this new project are to strengthen the Veterinary Faculty and promote research activities. Originally some four experts were foreseen but in view of present cuts it is to be expected that the project will be limited to one or two experts and possibly two associate experts.

The project will be initiated through a preparatory assistance approved from 1 July 1982.

MOZ/81/023 - Forestry Faculty

This project is to create a proper functioning Forestry Faculty within the University of Eduardo Mondlane. Assistance has already been provided to the Faculty through MOZ/76/007 and the establishment of a new project may be seen as a consequence of more clearly distinguishing this sub-activity rather than initiating new activities.

The project will be initiated through a preparatory assistance approved from 1 July 1982.

In addition to the above FAO executed projects three Government executed projects have been foreseen:

i. MOZ/81/016 - Agricultural Extension Nampula;
ii. MOZ/81/017 - Agricultural Extension Nante;
iii. MOZ/81/018 - Agro-technical Training.

The two projects MOZ/81/016 and 017 have similar activities i.e. to establish extension services and provide comprehensive support including training and technical expertise so as to promote the establishment and organization of two villages with cooperatives in each of the two projects. The ultimate objective is to increase agricultural production within the framework of the Ten Year Indicative Perspective Plan (PPI). The crops concerned include cotton, rice and food crops.

Only the MOZ/81/016 project is now scheduled to start in 1983 due to the financial constraints experienced by UNDP.

The MOZ/81/018 project will start in 1982, but at a very limited scale only including some preliminary work valued at approximately US$ 10 000. The objectives of the project have been defined to guarantee the rural working class a basic literacy and technical knowledge, strengthen the system of professional education of the agrarian workers and develop two-way communication systems between rural areas and Government structures.

The establishment of an agrarian communication centre, an instructors' educational centre and a provincial centre of education and communication are foreseen.

The educational centre will prepare instructors for the education of adult education teachers through a 3-phased, 11 month programme. The communication centre will produce programmes and materials to serve the different education programmes. The provincial centres will produce teaching material locally as well as conveying, supporting and controlling the programmes of alphabetization, adult education and extension of the Ministry of Agriculture in the respective provinces.

5.3.4.2. TCP

The present FAO TCP pipeline consists of three proposals at different stages of consideration.

A project proposal for TCP assistance in the field of pasture production was prepared in the Ministry of Agriculture and a request submitted to FAO by the end of January. The proposal was not acceptable to FAO and Government is reconsidering the request.

A project proposal for TCP assistance for a study on the application of appropriate technology for gas production, refrigeration and dehydration in seven State farms has been prepared and is presently being considered by Government. It appears that a request may not come forward in view of the long delay encountered.

A project proposal for TCP assistance came out of the FAO Investment Centre report on livestock development. The TCP assistance expected to be approved very soon under code TCP/MOZ/2202(I) includes US$ 140 000 to finance the services of a livestock planner, a photo interpreter, a water planning specialist and a sociologist for a total of 12 months, in addition to a vehicle and miscellaneous equipment.

The project will prepare a number of preparatory studies for the follow-up investment project.

5.3.4.3 GCP

There are no MONAP projects yet under discussion for the pipeline. However, there is a project in the pipeline in the field of food quality control and hygiene.

Improving food and water quality control is an important element in the preventive medicine policies of the Government of Mozambique, and indeed there is a great need for controlling production and processing, import and export of food products and control of drinking water.

On the above basis Swiss and Italian bilateral aid has funded the installation of a national laboratory for food and water hygiene, and equipment and good management have been of importance in improving the present situation.

The good results so far achieved have encouraged the two donor countries to indicate their willingness to continue their assistance in further improving the laboratory and in the establishment of similar laboratories in Beira and Nampula.

In order to ensure the involvement of FAO expertise and experience FAO has been approached to contribute to the implementation of a three year project.

The objectives of the project are to establish a national system of food quality control covering all food processing activities so as to protect consumers against disease and commercial misinformation and ensure the provision of non-polluted and non-spoiled food. In addition, the project has an objective to improve export possibilities.

The above is to be realised through the establishment of laboratories adequately equipped, elaboration of food quality norms and application of these rules and training of national staff to enable them to carry out all necessary duties after finalization of the project.

5.3.4.4 GCPS

As mentioned in Section 5.3.3.4 three out of eight projects identified by the Food Security Mission in October 1978 have become operational under GCPS, and another two projects have been implemented by PFL and OSRO.

The remaining three projects, provision of equipment to 110 buying brigades to strengthen the marketing of food grains, grain supply for food security reserve, and technical assistance for grain marketing are all in the pipeline.

The technical assistance for grain marketing with a total FAO component of US$ 272 574 has been approved with Belgian funding, and a candidate has been proposed. However, his candidature was not acceptable to Government which is in the process of defining a new set of terms of reference in view of a newly arrived MONAP expert on bilateral contract. As soon as received these will be submitted to FAO Headquarters.

As regards the grain supply for food security a mission with FAO participation visited Mozambique in December 1981, and assistance in the form of 10 000 tonnes of maize from WFP and 10 000 tonnes of wheat from Australia has been approved for drought affected areas in the Nampula Province.

The project on provision of equipment to the buying brigades is still awaiting identification of a donor; but Government is in agreement with the proposal in the mission report. This large two year project idea totalling US$ 2.1 million in donor contributions would supply vital equipment including vehicles to support the establishment and expansion of already existing buying brigades which form an essential element in Government's marketing strategy.

5.3.5 Global, Inter-Regional and Regional Projects

A list of the above projects of specific relevance to Mozambique was received from Headquarters in the beginning of the year. The list, however, needs to be studied more carefully, and it would be useful if an updated list could be forwarded. A brief summary of activities in Mozambique in these projects is given below.

RAF/77/006 - Forest Industries Advisory Group for Africa

A visit from 3 to 9 June was undertaken by a consultant to collect information in the field of forest industries covering areas as investment identification, manpower development and sub-regional cooperation.

RAF/79/065 - Southwest Indian Ocean Fisheries Management and Development

The responsible field officer of this project visited Mozambique from 6 to 11 February to undertake discussions with the Government in order to draw up the work programme of the project for 1982, which will be a preparatory phase. A second visit of the responsible field officer is planned for the second half of 1982.

TCP/RAF/2202 - Preparation of Project Proposals for the Establishment of an Early Warning System for Regioanl Food Security

Two visits of FAO Headquarters Staff were undertaken to Mozambique under this project in respectively early May and May/June.

The objective of the Missions was to devise and suggest how to establish a regional early warning system for the nine SADCC member countries.

Existing agricultural and meteorological data should provide timely key information on supply prospects of basic foodstuffs in order to determine necessary action to resolve predicted problems.

The report of the mission will be submitted to the Zimbabwean Government for further distribution to the SADCC countries. The report will include recommendations to mount a regional system as well as annexes covering individual countries.

Upon the request of the Government of Mozambique the mission also assisted in the preparation of a national project on the same subject. At present this subject is being reviewed at Headquarters and by Government before further action is taken.

INT/79/902 - Action Programme for Improved Plant Protection

A visit from 10 to 30 July of two consultants under this project to survey the plant protection situation in Mozambique was planned. However, in mid-June the Government informed that the visit should be postponed to August and that two other candidates than those proposed by FAO were requested. A preliminary visit by the Regional Plant Protection Officer in order to assist Government in finalizing the programme has consequently been postponed until further clarification has been achieved. This is actively being pursued.

5.3.6 WFP Activities

The following projects have been approved for WFP Assistance:

i. Feeding of School Children: This project is nationwide and distributes food with the objective of improving the nutritional standard. The present allocation is approximately US$ 8 million and the project is planned to end of 1983, with the possibility for a three year extension, amounting to some US$ 16.5 million.

ii. Assistance to Forestry Projects: This project provides food for workers in the Maputo, Manica, Sofala and Inhambane provinces. It started in April 1981 for five years. The allocation approved is US$ 19.3 million.

iii. Assistance to Rehabilitation and Development of the Dairy Industry in Maputo: This project provides dried skim milk and butter oil to the Matola Dairy Plant started in 1981. It is now in its second year. The allocation approved is US$ 3.1 million. An ISCDD Mission visited Mozambique in February/March of 1982 to evaluate the project and propose a five year extension including also the milk plants in Beira, Quelimane, Lioma and Nampula. This project was recently approved by the Committee on Food Aid (CFA).

iv. Assistance to the Rehabilitation of the Tea Industry: This project will supply food to workers at the Tea Estate in Gurue. The project started in early 1982 and an allocation of US$ 22.6 million over three years has been approved.

Furthermore, it can be mentioned that 10 000 tonnes of wheat have been approved towards the establishment of a food security reserve. In addition an emergency project for 13 276 tonnes of maize and 328 tonnes of pulses to the drought affected populations in Nampula has been approved by the Director General. Finally, two projects to support the structuring of communal villages, and coal miners in the Tete Province are in the pipeline.

A visit by Mr. M. Zejjari from the WFP took place from 29 May to 5 June to discuss the drought situation in Nampula and Cabo Delgado Provinces.

Close working relations are established between FAO and WFP at country level, the latest expression hereof being the cooperation on assistance to the drought affected areas in Nampula.

5.3.7 Conclusions

As indicated in Chapter 4, the programming mission which visited Mozambique in 1981 identified the following major constraints to the implementation of Government's development programme:

i. Lack of trained personnel and manpower;
ii. Lack of foreign exchange;
iii. Lack of an adequate marketing system;
iv. Lack of communications;
v. Lack of meaningful research and statistics;
vi. Human and animal diseases;
vii. Weakness of agricultural support services.

The projects in the UNDP pipeline are clearly defined on the basis of this general analysis as indicated in Section 5.3.4.1. However, it can be stressed that the existing pipeline projects mentioned only form part of the mission proposals. That is, the UNDP projects must logically be supplemented by other projects.

The MONAP Programme which in terms of funds is more important that the UNDP programme is not directly based on the above mission; but the activities under this Programme are as explained in Section 5.3.3.3 in general intended to overcome some of the above constraints, thereby complementing the UNDP Programme. Further analytic input in relation to the MONAP programme should be the result of the mid-term evaluation now scheduled for September/ October of 1982.

Other FAO projects are either of an emergenoy nature (OSRO) or linked to the food security field (including marketing). These projects therefore need no further justification. Finally, the TCP Programme is occupying a catalytic and important strategic position in Mozambique as is the case in other countries.

Regional (SADCC) and TCDC aspects form as pointed out in Section 4.3.1 essential parts of a number of projects thereby reflecting the increasing emphasis on these aspects of the overall development process locally as well as internationally.

Appendix 1

CROP PRODUCTION BEFORE INDEPENDENCE[1]

Crops	Area '000 ha	Production '000 tonnes	Yield t/ha	Production in Trad. Sector (%)	Comments
A. Food Crops:					
Cassava	448.9	2 500	5.6	100	Grown in Cabo Delgado, Nampula, Zambezia, Inhambane and Gaza
Maize	833.2	373	0.45	90	Most important growing areas were Sofala and Tete
Sorghum	374.8	195	0.5	100	Important in northern provinces especially Niassa
Rice	76.9	99	1.3	40	Mostly grown in Gaza, Zambezia, Maputo and Nampula
Millet	112	32	0.3	100	Primarily grown in Sofala, Manica and Tete
Wheat[2]	15	4.5	0.3	16.6	In Gaza, Maputo, Manica and Tete
Groundnuts	254	55	0.22	100	Mostly grown in Gaza, Inhambane and Nampula
Beans	181.4	62	0.34	95	Grown in whole country but especially in Nampula and Zambezia
Sweet Potatoes[3]	8	40	5.0	100	Grown countrywide especially in Zambezia, Tete and Maputo
Potatoes[5]	5.6	40	7.0	-	Mainly grown in Maputo, Gaza and Manica

Crops	Area '000 ha	Production '000 tonnes	Yield t/ha	Production in Trad. Sector (%)	Comments
Vegetables[5]	-	60	-	-	Mainly grown in Maputo, Gaza and Manica
B. Industrial Crops:					
Cotton	351	139	0.4	66.7	Concentrated in Nampula, Zambezia, Cabo Delgado, Manica, Sofala and Niassa
Sugar Cane	48	2 600	54.0	-	Mainly produced in Sofala, Zambezia and Maputo
Tea (green leaf)	17.5	68.5	3.9	-	Grown in an area near Gurue in Zambezia
Sisal	41	30	0.7	-	Originates in Nampula and Zambezia with small quantities grown in Manica and Cabo Delgado
Tobacco[5]	6	4.4	0.7	20	Produced in Nampula, Sofala, Zambezia and Maputo
Sunflower[5]	8	4	0.5	5	Grown in Manica, Niassa and Zambezia
Sesame[5]	11.4	2.2	0.2	85	Mainly in traditional sector all over the country

Crops	Total Number of Plants producing in '000-	Production '000 tonnes	Production in Trad. Sector (%)	Comments
C. Permanent Crops:				
Cashew	35 000	200	90	Most important areas are Nampula and Inhambane. Mozambique is the largest producer in the world
Copra	10	68	50	Concentrated in Zambezia and Inhambane
Mafurreira 5/	1 500	6	95	Major areas are Inhambane, Gaza and Maputo
Mango	3 900	-	98	Concentrated in Zambezia, Nampula, Sofala and Manica
Banana	11 000	67	66.7	Major areas Manica, Gaza and Maputo
Papaya	3 200	-	98	Distributed all over the country, particularly Inhambane, Nampula and Zambezia
Guava	-	-	100	Data not available
Citrus 5/	2 600	30	78	Mainly in Manica and Maputo but also in some other provinces
Pineapple 4/	36 000	-	97	Concentrated in Inhambane, Gaza and Zambezia
Temperate fruittrees 4/	42	-	65	Production areas situated in Tete, Manica and Niassa

Notes: 1/ Data mainly refer to 1970
2/ Data refer to 1971/72
3/ Data refer to early seventies
4/ Data refer to 1976
5/ Data with no dates given

Source: Araujo (1979), CEDIMO (1978), UNDP/FAO (1976) and Ministry of Agriculture (1977)

Appendix 2

APPROXIMATE VALUE OF SELECTED FOOD AND PROJECT ASSISTANCE RECEIVED BY MOZAMBIQUE IN 1980

Source	Type of Assistance	Value (Millions of Meticais)
1. Sweden	Studies and consultancies	
	National Transport Study	4.2
	Urban transport study	19.6
	Coastal shipping	9.1
	High-tension line	54.6
	Cahora Bassa study	6.3
	Civil aviation	18.9
	Airport lighting	14.0
	Coal study I	15.4
	Manica construction project	8.4
	Paper	3.5
	Paper and pulp study	11.2
	Telecommunications	14.0
	Support for imports	
	Airport lighting	28.0
	Coal mining equipment	4.2
	Paper II	70.0
	Wheat (delivered cost)	70.0
	Textiles, footwear, geology, fisheries, telecommunications equipment, health equipment, road equipment, etc.	259.7
	Others	98.7
	Education sector	70.0
	Fund for personnel	70.0
	Wood Industry	17.5
	Sub-total	867.3

Source	Type of assistance		Value (Millions of Meticais)
2. Norway	Power development		
	Hydro-power study		30.0
	Institutional cooperation		3.0
	Follow-up procurement of diesel generators and equipment		18.0
	Equipment for power development		19.2
	Roads		
	Follow-up procurement of road construction equipment		12.0
	Road transport study		12.0
	Rural road maintenance, pilot project		15.0
	Fund for technical assistance		12.0
	Women's training centre		3.0
	Commodity assistance		
	Workshop equipment, vocational schools		3.0
	Paper, educational purposes		43.8
	Technical assistance		
	Experts		4.2
	Consultancy services		6.0
		Sub-total	181.2
3. Nordic Countries			
	MONAP[a]	Sub-total	296.0
4. Netherlands Loans			
	Ministry of Public Works		
	Water		13.4
	Maputo drainage		100.1
	Road construction		33.5
	Sewerage		26.8
	Ministry of Ports and Surface Transport		
	Dredger Rovuma		67.0

[a] MONAP is the Mozambique Nordic Agricultural Programme, funded by the five Nordic countries approximately on the basis: Denmark 23 percent, Finland 16 percent, Iceland one percent, Norway 16 percent and Sweden 44 percent.

Source	Type of assistance		Value (Millions of Meticais)
4. Netherlands (continued)			
	Ministry of Agriculture		
	Storehouses		13.4
	State fisheries		
	Cold storage		31.6
	Ministry of Industry and Energy		
	Electricity equipment		26.8
	Service agreement		26.8
		Sub-total	339.4 [b]
	Grants		
	For repair of bridges		80.4
	For primary health care project		80.4
	Previous year's balance for health National Soil Institute and School of Topography		81.6
		Sub-total	242.4
5. NOVIB [c]	Contribution in kind	Sub-total	0.9
6. ICCO [d]	Development of water resources		1.3
	Zimpeto schools project		0.7
	Support for nourishment project		1.8
		Sub-total	3.8
7. CUSO [e]	Contribution in 1980 for Niassa programme	Sub-total	5.2

[b] MT 343 million also remains uncommitted against loan agreements established in the period 1975-79.

[c] Netherlands Organization for International Development Cooperation

[d] Interchurch Coordination Committee for Development Projects

[e] Canadian University Service Overseas

Source	Type of assistance	Value (Millions of Meticais)
8. OXFAM: Canada/ Australia/ Belgium	For two communal villages (Lussanhando and Oua): 6 pumps with spares, 6 motors, piping, 2 crushing mills, 1 landrover with spares, camping equipment	n/a
	For three communal villages (Lipuzia, Chicuedo, M'sawize): 6 pumps with spares and 6 motors	n/a
	For three villages (Aldeias A, Aldeias B and Unango): Working tools and seeds	n/a
	For Unango: 2 landrovers	n/a
9. Lutheran World Federation	Food aid for disaster relief, seeds, blankets, motorized pumps and agricultural implements	n/a
	Seeds, 3 grinders, 200 buckets and 600 blankets	0.9
	GRAND TOTAL	1 937.1 f/

f/ US$ 55.3 million

Note: Assistance from Denmark in water systems and pumps, and in poultry slaughtering facilities and other agricultural equipment, from Kuwait to prepare a feasibility study for irrigation of the Massingir dam, from France and Italy in constructing a Central-North high-tension line and from the Netherlands for the expansion of the Nacala Electricity plant in various stages of implementation have not been included in the list.

Source: UN (1981)

Appendix 3

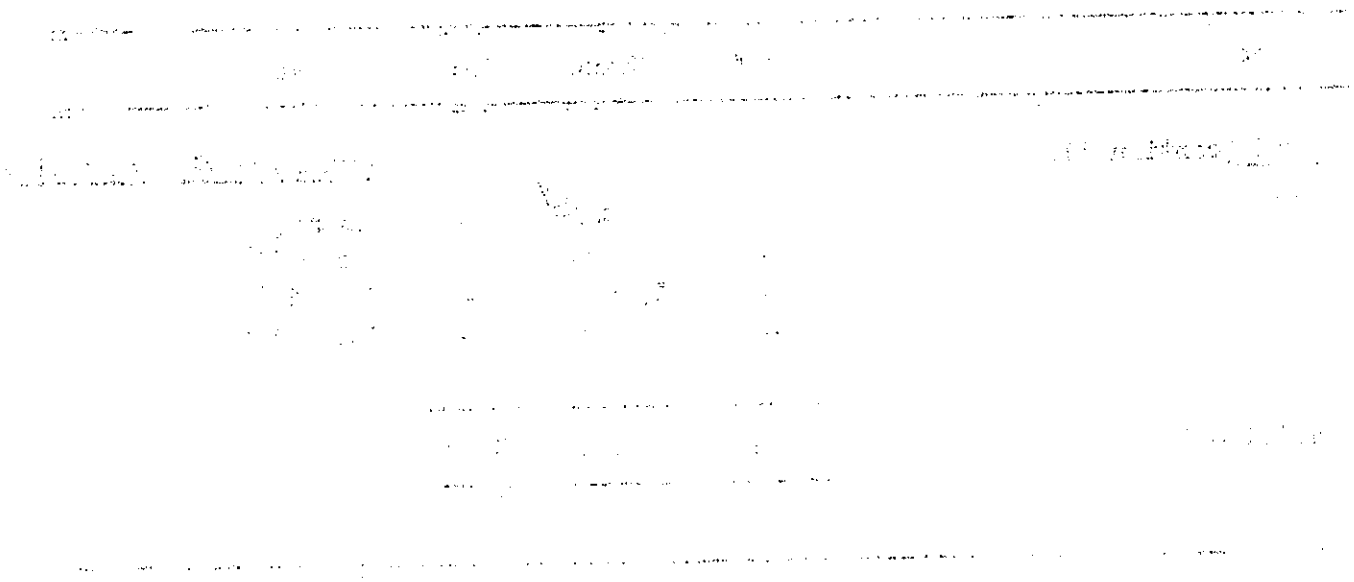
FOOD DONATIONS TO MOZAMBIQUE 1980, 1981 and 1982

Donor	Wheat	Maize	Rice	Remarks
1980:				
Canada	4 500	-	-	Note: A substantial part of these donations only arrived in 1981: wheat 27 770 tonnes, maize 16 712 tonnes and rice 100 tonnes.
Dem. People's Rep. of Korea	3 000	-	-	
Denmark	7 618	-	-	
France	1 231	-	-	
India	-	-	1 000	
Italy	9 640	-	-	
Japan	-	-	10 104	
Netherlands	-	7 000	-	
Spain	2 000	-	-	
Sweden	20 000	-	-	
United Kingdom	13 970	-	-	
United States	57 000	-	-	
Yugoslavia	9 000	10 000	-	
EEC	9 606	-	-	
WFP	-	5 362	-	
Caritas Mozambique	-	300	-	
Christian Council, Mozambique	-	639	100	
Lutheran World Federation	-	80	1 000	
Red Cross (Fed. Rep. of Germany)	-	3 000	-	
Total - 1980	137 565	26 381	12 204	
1981:				
Austria	-	8 000	-	Arrival in Beira expected February 1982
Canada	5 600	-	-	Arrival in Beira expected February 1982
Dem. People's Republic of Korea	2 000	-	-	Arrived in Beira 5.4.81
Denmark	-	13 300	-	Arrival in Maputo expected February 1982
EEC	25 000	-	-	8 000 t/Maputo 27.9.81 12 500 t/Maputo 16.11.81 4 500 t/Beira Oct. 1981
France	3 000	-	-	Arrived in Nacala 11.1981
United Kingdom	7 000	5 000	-	Wheat: 4 000 t/Maputo 13.5.81; 3 000 t/Beira Sep.1981. Maize: arrived Beira Nov. 1981

Donor	Wheat	Maize	Rice	Remarks
1981 (continued):				
Italy	8 460	-	5 000	Wheat arrived as wheat flour in Beira 1 640 t. 29.8.81; in Maputo 5 000 t. 7.9.81. Rice April 1982
Netherlands	-	7 800 + 5 800	-	7 800 t/Maputo Sep/Oct 81; 5 800 t. expected Mar/Apr. 1982
Sweden	15 000	4 900	-	Wheat arrived Maputo 27.9.81; Maize arrived May/June 1981
United States	20 000	-	-	2 500 t/Beira 11.10.81 10 000 t/Maputo 4.11.81 7 500 t/Nacala 23.11.81
WFP	-	10 630	-	600 t/Maputo 9 250 t/Beira 780 t/Beira Jan. 1982
Total - 1981	86 060	55 430	5 000	
1982 (estimated as of 15/5/82)[1]:				Estimated time of arrival
Austria	-	8 000[2]	-	February 1982
Canada	6 755	-	-	March 1982
	8 864	-	-	June 1982
Denmark	-	14 375[2]	-	February 1982
EEC	5 000	-	-	July 1982
	25 000	-	-	September 1982
France	4 000	-	-	July/August 1982
German Red Cross	-	2 000	-	?
Italy	-	-	5 000[2]	March 1982
Netherlands	-	5 800[2]	-	June 1982
Norway	-	8 500	-	June 1982
Red Cross	-	913	-	May 1982
Spain	2 000	-	-	June 1982
Sweden	-	9 400	10 000	June 1982
Switzerland	-	1 000	-	May 1982

Notes: [1] Figures do not indicate real needs to be imported
[2] 1981 donations

Donor	Wheat	Maize	Rice	Remarks
1982 (continued):				Estimated time of arrival
WFP	-	780 2/	-	January 1982
	-	600	-	March 1982
	-	13 590	-	June 1982
	-	3 866	-	July 1982
Total - 1982	51 619	68 824	15 000	



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Note: In addition to those references mentioned extensive use has been made of articles published in the daily newspapers 'Noticias' and 'Diario de Moçambique' and the monthly magazines Tempo and AIM, the latter in English and the former in Portuguese. In addition, Informative Documents of CEDIMO should be mentioned. These references are very important and invaluable sources of information as they contain speeches and statements by the President, new laws approved by the General Assembly, resolutions from different state and party bodies and other relevant information on Mozambique such as trends and problems in agricultural production.

Besides the above mentioned, available project documents, reports and other internal FAO and UNDP materials, as well as normal FAO publications and statistics, have of course been used.