



The Courier

AFRICA-CARIBBEAN-PACIFIC - EUROPEAN COMMUNITY

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DRINKING WATER

THE EUROPEAN COMMUNITY

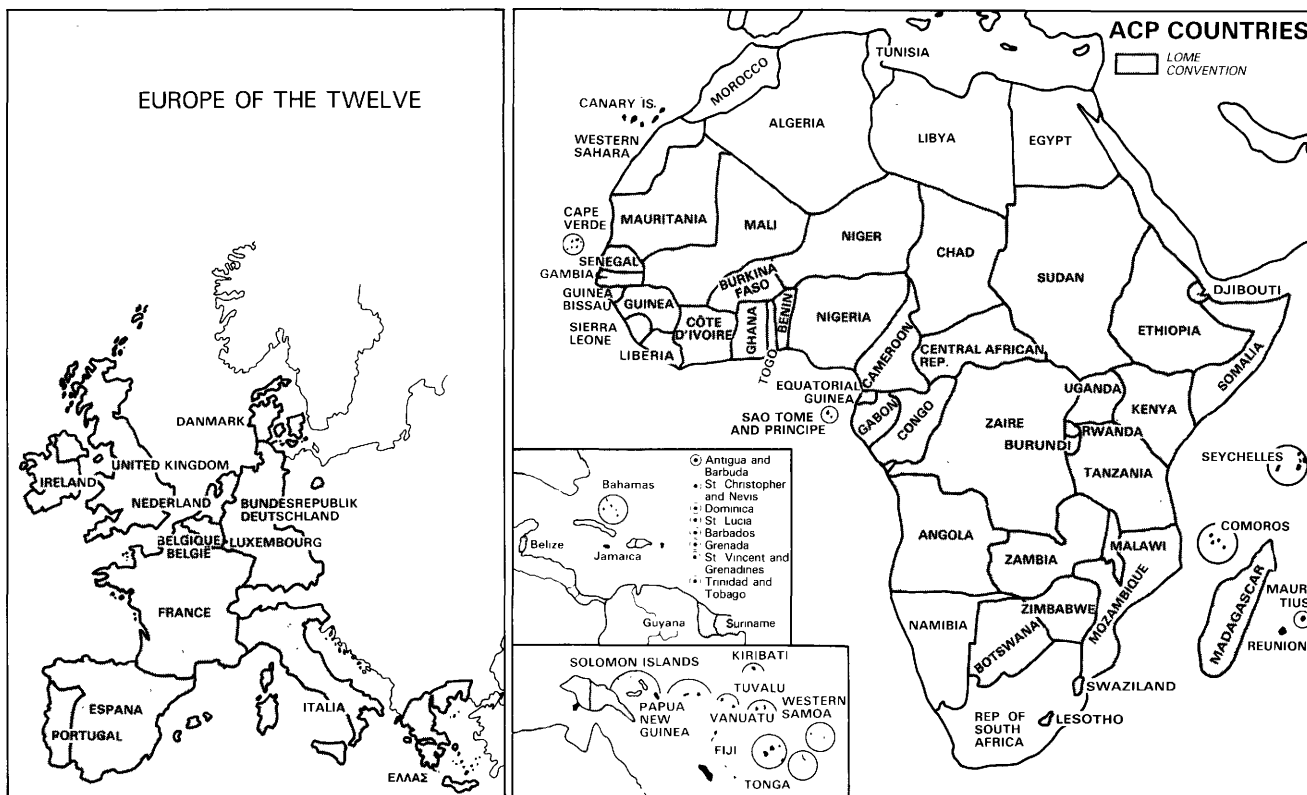
BELGIUM
DENMARK
FRANCE
GERMANY
(Federal Rep.)
GREECE
IRELAND
ITALY
LUXEMBOURG
NETHERLANDS
PORTUGAL
SPAIN
UNITED KINGDOM

THE 66 ACP STATES

ANGOLA
ANTIGUA & BARBUDA
BAHAMAS
BARBADOS
BELIZE
BENIN
BOTSWANA
BURKINA FASO
BURUNDI
CAMEROON
CAPE VERDE
CENTRAL AFRICAN
REPUBLIC
CHAD
COMOROS
CONGO
CÔTE D'IVOIRE
DJIBOUTI
DOMINICA
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GAMBIA
GHANA
GRENADA
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MADAGASCAR
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MALI
MAURITANIA
MAURITIUS
MOZAMBIQUE
NIGER
NIGERIA
PAPUA NEW GUINEA
RWANDA
ST. CHRISTOPHER & NEVIS
ST. LUCIA

ST. VINCENT & THE
GRENADINES
SAO TOME & PRINCIPE
SENEGAL
SEYCHELLES
SIERRA LEONE
SOLOMON ISLANDS
SOMALIA
SUDAN
SURINAME
SWAZILAND
TANZANIA
TOGO
TONGA
TRINIDAD & TOBAGO
TUVALU
UGANDA
WESTERN SAMOA
VANUATU
ZAIRE
ZAMBIA
ZIMBABWE



FRANCE

(Overseas departments)

Guadeloupe
Guiana
Martinique
Reunion

(Overseas territories)

Mayotte
New Caledonia and dependencies
French Polynesia
St Pierre and Miquelon
French Southern and Antarctic Territories
Wallis and Futuna Islands

NETHERLANDS

(Overseas countries)

Netherlands Antilles
(Bonaire, Curaçao, St Martin, Saba,
St Eustatius)
Aruba

DENMARK

(Overseas territory)

Greenland

UNITED KINGDOM

(Overseas countries and territories)

Anguilla
British Antarctic Territory
British Indian Ocean Territory
British Virgin Islands
Cayman Islands
Falkland Islands and dependencies
Montserrat
Pitcairn Island
St Helena and dependencies
Turks and Caicos Islands

This list does not prejudice the status of these countries and territories now or in the future.

The *Courier* uses maps from a variety of sources. Their use does not imply recognition of any particular boundaries nor prejudice the status of any state or territory.

SOUTHERN AFRICA

Three important meetings took place at the beginning of the year:

- the **Joint Assembly** at Ezulwini in Swaziland (see p. 6 et seq)
- **SADCC** in Harare in Zimbabwe (see p. 18 et seq)
- the **Frontline States and the EEC** at Lusaka in Zambia (see News Round-up p. 1 et seq).

All proof of the importance attached to this region by both the ACP and the Community.

MEETING POINT: Roderick Rainford

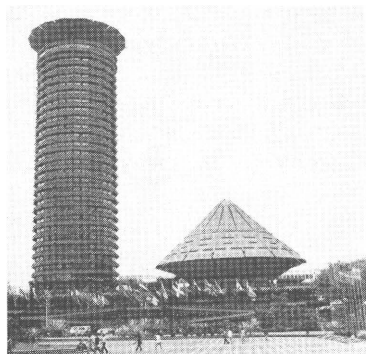


The Caribbean Common Market (CARICOM) has projected an image of remarkable unity inside the ACP Group and in other international fora. Secretary-General Rainford explains the reality of integration, the harsh facts of economic trends and the problems of security in the zone. He stresses that regional groupings do represent a real catalyst for development.

Pages 2 to 5

COUNTRY REPORTS

GRENADA: Its extraordinary beauty and fertility have, over the centuries, made it a prize to be coveted, often at the cost of violence. Now, after spell of turbulence, the island is enjoying a period of tranquillity. A major responsibility for the Government is to channel aid in the right direction and to ensure a prosperous future without damaging the fundamental nature of the island's way of life. Pages 23 to 37



KENYA: A model of African development, its economy has been in the doldrums in recent years — a situation aggravated by the 1984 drought. Good rainfall in 1985 has resulted in a very good harvest and the economy is well on the way to recovery. But a rapidly rising population poses a serious problem for the country's economic planners. Pages 38 to 53

DOSSIER: Drinking water

Millions of individuals, above all in the developing countries, do not have access to clean water in sufficient quantity. Economic development and the well-being of the population are inseparable from the provision of regular supplies of drinking water. This Dossier looks at the progress notched up at the halfway mark of the International Water Decade, particularly in relation to improvements in people's sanitary arrangements. Pages 62 to 96



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No 96 — MARCH-APRIL 1986

CONTENTS

2. **MEETING POINT:** Roderick Rainford, Secretary-General of CARICOM

ACP-EEC

- 6. **Joint Assembly:** Meeting at the gates of apartheid
- 13. Protecting natural resources—the fight against desertification in Africa
- 15. ACP attendance at trade fairs

ACP — Regional Cooperation

- 18. **SADCC:** Achievements and prospects
- 21. **IGADD:** Inaugural summit in an oasis of peace

COUNTRY REPORTS

- 23. **GRENADA:** Honeymoon island on honeymoon
- 29. Grenada at a glance
- 30. Interview with Prime Minister Herbert Blaize
- 34. The nutmeg: a spice story
- 36. EEC — Grenada cooperation
- 38. **KENYA:** out of the wood but too many people!
- 44. Kenya profile
- 45. Interview with Elijah Mwangale, Minister of Foreign Affairs
- 46. Interview with Robert Ouko, Minister of Planning and Development
- 48. Interview with Odongo Omamo, Minister of Agriculture and Livestock
- 50. A brighter future for tourism
- 51. EEC — Kenya cooperation

EUROPE

- 54. The enlarged Delors Commission
- 55. EEC/ASEAN Cooperation — Mutual benefits from economic integration
- 59. Eurostat: Statistical training in Africa
- 62. **DOSSIER: Drinking water — a basic necessity of life**
- 64. Water decade — limited results at the half-way mark
- 67. Better use of underground water resources
- 72. Non-conventional water resources
- 76. Sanitation, a crucial problem
- 80. Better health through better water
- 83. A minimum environment sanitation package for health
- 85. Drinking water at least cost
- 87. The EDF and drinking water
- 88. Evaluation of water supply projects
- 91. Urban drainage: the Dakar Canal de la Gueule Tapée
- 92. Shipping water to Antigua
- 93. Tuvalu: drinking from the rain
- 93. Increasing water awareness
- 95. Planning water supply in Tanzania

DEVELOPING WORLD

- 97. Big fish threaten Africa's great lakes

CLOSE-UP

- 98. Sudan Airbridge — hope from the sky

101. CTA-BULLETIN

NEWS ROUND-UP (yellow pages)

EEC-Frontline States' meeting in Lusaka

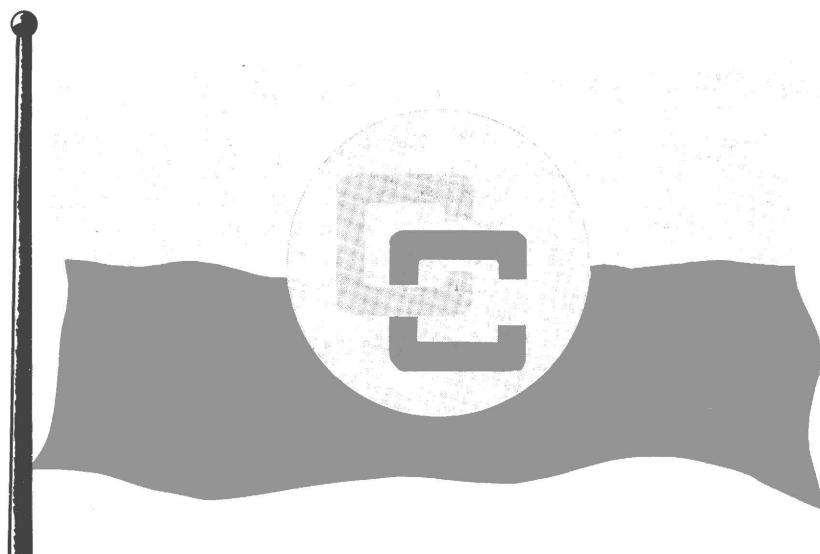
Lomé III programming

CDI: Industrial cooperation

OPERATIONAL SUMMARY (blue pages)



CARICOM Secretary-General Roderick Rainford



The Caribbean Community and Common Market (CARICOM) came into being with the signing of the Treaty of Chaguaramas in July 1973. It comprises 13 members, Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Christopher and Nevis, St. Lucia, St. Vincent and the Grenadines and Trinidad and Tobago. In addition, Haiti, Suriname and the Dominican Republic have observer status in certain areas of the Community's competence. The Community's objectives are: economic integration throughout the Caribbean Common Market; the coordination of the foreign policies of Member States; and functional cooperation in certain common fields such as shipping, health, training, education and women's affairs.

In 1984, Roderick Rainford, a Jamaican economist, became Secretary-General of this important regional grouping for which the EEC has always been an important market, which recognizes the stabilizing influence of the Lomé Conventions on trade and development and which has fully played its part in the ACP Group. He recently gave *The Courier* the following interview, which traces the sometimes troubled political and economic development of the Caribbean region and its regional body.

“Our unity arises... from the nature of our common problems”

Export earnings: very sluggish growth

► How would you sum up the general state of economic well-being of the CARICOM Member States at present?

— The fragile economies of the Member States of the Caribbean Community have all been suffering from the negative effects of the prolonged worldwide depression. In many cases, growth rates have declined dramatically and in a few instances have actually become negative for several consecutive years.

The countries of the Region are, in the main, heavily dependent on export earnings and these have been growing at a very sluggish rate in recent years. Sugar, a main agricultural export crop of six CARICOM countries, has been particularly affected by the depressed state of the market and there now exists a wide divergence between the costs of production and the low world market price. The bulk of the sugar is sold under the Lomé Agreement but the negotiated price for the last six or so years has not borne any relationship to the cost of production.

In the case of CARICOM banana exporters, the fluctuating value of the pound resulted in as much as a 25 per cent reduction in the local currency earnings from the sale of bananas in 1985 despite the guaranteed European market and an improvement in the export price of the fruit. The bauxite and petroleum sectors have also been adversely affected by demand and price conditions in the international market.

The tourist sector, a major foreign exchange earner for many CARICOM Member States, has shown an upturn after a period of relatively slow growth in recent years. One result of this poor performance of the major sectors has been a worsening of the balance-of-payments and foreign exchange situation of Member States, increased pressure on the Governments' fiscal operations and a reduction in the level of employment in some sectors. The scarcity of foreign exchange has, in turn, led to a fall in intra-regional trade which has traditionally accounted for the greater part of the Region's manufactured exports.

► What are CARICOM's main ob-

jectives and what progress has so far been made towards achieving them?

— The main objectives of the Caribbean Community are the economic integration of the Member States by the establishment of a Common Market regime, the coordination of foreign policies of Member States and functional cooperation including the operation of certain common services and activities. These objectives are enshrined in the Treaty of Chaguaramas which was signed on 4 July 1973.

The progress of the integration movement in these areas has been mixed. In the area of economic cooperation, CARICOM has been functioning in a rather difficult operational environment which has reduced the early achievements. The removal of tariff barriers during the Free Trade regime in the Caribbean (CARIFTA) had an immediate impact on the volume of intra regional trade.

During the post-1976 period, however, the flow of trade has been reduced as purchasing power in a number of Member States has fallen. Trade oscillated around a stationary trend between 1976 and 1981 but began to fall in real and nominal terms after 1982. The fall has been due to the impact of measures by some Member States to protect their balances of payments, to the falling price for petroleum — a major item in intra-regional trade, payment difficulties resulting in the suspension of the multilateral clearing facility and to increased competition from extra-regional sources of supply.

In 1984 in Naussau, The Bahamas, the Community decided on a programme of measures to arrest the decline in intra-regional trade and to re-stimulate growth in this trade. The full impact of these measures has not yet been felt as implementation is just now being completed.

In the area of production, cooperation in agriculture focused initially on training and human resource development, promotion of research and the operation of intra-regional marketing arrangements for specified primary agricultural products and studies to identify the sub-sector needs in various areas. A Regional Food and Nutrition Strategy has been developed for implementation, and a Food Corpora-

tion, as a production company, was set up by the Member States in 1976.

In the area of industrial cooperation, a regime of industrial programming has now been agreed and several projects aimed at producing for both regional and extra-regional markets have been identified. The challenge is now to transform these investment opportunities into production enterprises.

In the area of functional cooperation, significant progress has been made, particularly in the fields of education and health. The Caribbean now has its own regional examinations body for children leaving secondary school. There is a shipping line — the West Indies Shipping Corporation (WISCO) owned by 12 Member States — which provides a regular service throughout the Common Market. There is also a jointly-owned airline — Leeward Islands Air Transport (LIAT) — which operates among nine of the Member States. There is a Uni-

to coordinate positions on a range of matters. They have been particularly effective in defending the territorial integrity of two of the Member States where boundaries are disputed by more powerful neighbours.

“A greater developmental impact”

► *From your personal experience, how would you rate the value of regional groupings as a catalyst to development?*

— Regional integration increases the economic space available, particularly to small countries like those of the Caribbean Community. In the experience of the Caribbean, the growth of the manufacturing sector, particularly in the smaller states, has been due to the integration arrangement as in excess of 50 per cent of exports of manufactures take place intra regionally.

Regional cooperation also improves the negotiating position of small



The CARICOM Venture, one of the West Indies Shipping Corporation (WISCO) vessels providing a regular service in the region

versity — the University of the West Indies — which meets a large portion of the Community's requirements for formal training at University level. In the area of development finance, the Caribbean Development Bank has emerged as a very effective mobilizer of financial and technical resources for the Member States.

CARICOM Foreign Ministers meet regularly to exchange information and

states in the Caribbean. We have experienced this in our relations with Europe, Canada and even in our relations with the United States of America. We have not made maximum use of the potential but close analysis would suggest that such arrangements tend to have a greater developmental impact. Regional integration and cooperative activities undertaken in that framework provide a more challenging basis for high level specialist manpower

er which could not be fully employed in any one country. The retention of such skilled manpower provides possibilities of organizing the critical mass necessary for tackling a number of developmental problems facing the small countries.

All these elements can support the efforts being made by individual countries to provide a better standard of living and to optimize the use of their available human and natural resources.

► *Can lessons be drawn from the CARICOM experience as a regional development organization to benefit other, younger regional bodies?*

— Each integration arrangement is unique. There are, however, several experiences from which lessons can be drawn. The 12 years of CARICOM have shown that the external environment in which the Community has to function can place a heavy and disproportionate burden on individual Member States. This, in turn, can slow the integration process unless the grouping can find effective means of assisting the individual Member States in overcoming the external shock. A useful approach is to seek to build up a reservoir of resources in relatively good times regardless of whether any dangers are forecast.

► *Do you think the differences in economic approach among the CARICOM countries have hindered the achievement of its goal?*

— No, they have not. Even though in some CARICOM countries the public sector plays a greater role in economic activity than in others, basically they are all mixed market economies. The differences in the forms of internal economic organization do not, however, in and of themselves, hinder or adversely affect the operations of the Common Market.

► *Would it be true to say that CARICOM's concerns have become increasingly political as opposed to economic or commercial in past years?*

— No, this is not true. Most of the energies of the integration movement have been placed on finding solutions to the trade problems and towards devising measures to bring about structural adjustment in the economies of the Region. Occasionally, the more political issues have come to the fore e.g., during the crisis experienced in Grenada. Basically, to date, CARICOM maintains a balanced focus on the three pillars of the integration movement, namely, economic cooperation, foreign policy coordination and functional cooperation.

► *Despite internal differences, the Caribbean has in the ACP context, for*

movement, it was recognized that the external bargaining power of the Community could be maximized if joint approaches are made in the international arena. Article 39 of the Treaty of Chaguaramas therefore makes provision for such consultations to be made, as far as practicable, prior to all international economic, financial and trade meetings.

Options for security

► *The security of small states, whether from internal or external forces, is a major concern in the Region. What are your views on this problem?*

— The Commonwealth Caribbean is made up of 13 States, eleven of which are islands or groupings of islands, and all of which are small, mini- or micro-states. The total population of the Caribbean Community is of the order of 5.6 million people.

In terms of their internal organization for defence, these states have a small standing army and/or police force which depend on a small defence budget for manpower, training and equipment.

CARICOM territories are scattered over an area of over 1 600 km and with their location in the immediate vicinity of a superpower, with far-reaching strategic interest in

these areas, the maintenance of the integrity of these states in a milieu of balanced relations with the outside world becomes a very challenging matter indeed.

Twelve of the CARICOM States are sovereign states but, due to their smallness, they have a limited capacity to physically defend their sovereignty from serious internal or external threats. Clearly this must be a matter of serious concern for the countries in the Region since it concerns their political integrity, their capacity to control their resources; indeed their very existence.

Various options are open to the countries of the region to reduce their vulnerability in this respect. These include bilateral or multilateral defence



"Opportunity is one thing. Use of the opportunity is another"

example, presented an image of remarkable unity. Has the duty to live up to this image been a genuine unifying force within the Caribbean Community?

— It is true that the Caribbean position at a number of international fora has been an increasingly well-coordinated and articulated one. But our unity arises essentially from the nature of our common problems and a natural disposition to resolve differences during our intra-regional consultations prior to engaging in international discussions or negotiations. The relatively more intimate nature of these intra-regional consultations provides opportunity for accommodation of genuine interests.

From the outset of the integration

alliances with large powers, but this has implications for the sovereignty of small states and their ability to maintain control of the situation during times of crisis. The hemispheric Rio Treaty is an example of a multilateral defence alliance with a big power and to date this has not always proved an effective response to threats perceived by states' parties.

Alternatively one could envisage the pursuit of joint arrangements to deal with certain common security interests. Currently Barbados and the OECS States are signatories to a cooperation arrangement in this direction. It remains to be seen whether there will, in time, be any widening of the participation in this arrangement.

Next, we should consider assisting in the creation of an international environment which will enhance collective security. It is true that the current international political situation does not give small states much cause for relying on the international community to enhance their security but this is the option which has to be the way of the future and which must definitely be pursued in the long term.

Finally, and very importantly, much of the security of small states will depend as well on the creation of viable and just internal social and economic orders which will reduce their attractiveness as targets for internal and external adventurism.

The Standing Committee of Ministers responsible for Foreign Affairs and the Conference of Heads of Government of CARICOM have always been deeply aware of the dimensions of the problem and the need to maintain the search for solutions.

At its Fifth Meeting in 1984, the Conference of Heads of Government endorsed the need for continuing efforts within the Community to identify the various forms of threats to the security of small states in the Region. To this end a meeting of a Working Party on Regional security was convened in The Bahamas in 1985 and it is expected that the Working Party will meet again in the future.

There has also been the very important Report produced by the Commonwealth Secretariat to which the Caribbean made a contribution — reviewing the security problems of small states, and putting all the elements in

proper perspective. In my view that Report properly avoids putting an exclusive focus on security in the conventional physical sense and highlights the social, economic, cultural and political aspects of the matter.

“STABEX ... provided welcome support”

► *All independent CARICOM Member States are members of the ACP Group. What have been the advantages to the Caribbean of having the European Community as a partner in development?*

— The Caribbean, small countries, depend significantly on exports to maintain economic development. Europe has traditionally been an important market for Caribbean exports, such as sugar, bananas and rum. The Lomé Convention provides an opportunity to instil a greater degree of stability into these trading relations. But opportunity is one thing. The use of the opportunity is another. Both the ACP and the EEC sides to the Convention must jointly face the challenge of ensuring that the opportunity is in fact converted into reality.

The Caribbean countries also need to build up their infrastructure to support production. Technical and financial assistance under the Lomé Convention provide a relatively predictable supplement to internal resources for these purposes.

STABEX resources, even though inadequate at the time, provided welcome support following the devastation of the banana industry after Hurricanes David and Allen. The Caribbean has also taken advantage of the technical assistance offered by the EEC in such areas as trade promotion and education. To date we have not benefitted as much as we would have liked from the provisions of the industrial cooperation chapter but it is anticipated that greater advantage will be taken under Lomé III.

► *The Agreement formally setting up the ACP Group and foreseeing the need for intra-ACP cooperation was signed in Georgetown ten years ago, and a number of the Group's major meetings have been held in the Caribbean since. The Caribbean is clearly committed to the idea of intra-ACP cooperation, but would you agree that much remains to be done?*

— Yes, there is scope for much more to be done in the area of intra-ACP cooperation, fully recognizing of course that there are obstacles to be overcome.

Traditionally, the various regions have had few direct links. The absence of infrastructure presents a challenge that will have to be faced both with determination and realism. In the short run, efforts should continue to be made to promote a greater flow of trade and exchange of expertise within the various geographic subregions, for example, among the Caribbean ACP countries and OCTs, and the French departments of Martinique and Guadeloupe where the infrastructure facilities are more available.

At the intra-regional level, effort should be directed to finding specific viable areas of cooperation that could form a base on which to build further. One area that comes readily to mind is that of consultancy and engineering services.

► *Finally, what do you see as the role of the ACP Group in the general context of North-South relations?*

— I see the member countries of the ACP Group as playing a balanced and responsible role in the wider group of developing countries in their struggle to improve the relations between the North and the South. The Lomé Convention has often been cited as a good example of cooperation between North and South and has demonstrated the extent of the interdependency between the two groups of countries. From the point of view of developing countries, the ACP experience proves that it is possible for countries to use their collective bargaining power to secure arrangements which can help improve the flows of trade, aid and investments from the North. The ACP Group has also helped to focus the attention of a significant number of the industrialized countries on the plight of the poorer nations and to develop an awareness of the kinds of solutions necessary to improve the standards of living in the developing countries. In a wider context, the links made among ACP countries within the framework of Lomé have helped to strengthen their positions in other international fora such as UNC-TAD, the UN and the international financial agencies. ○ Interview by

Myfanwy VAN DE VELDE

ACP-EEC JOINT ASSEMBLY

At the gates of apartheid

Swaziland, of great natural beauty and bathed in light, is curiously green in this summer season. Here, in a part of the world where violence is gaining dangerous ground and tension mounts every day, is a country with a highly developed sense of peace and stability, an island where black and white live side by side and do their best to get on. And it was here, in Ezulwini near Mbabane, that the Joint Committee held its second meeting from 27-31 January.

"Make yourselves at home", said Mhambi Mnisi, Swaziland's Foreign Affairs Minister, as he welcomed ACP and EEC delegates. And indeed no effort had been spared to make their stay a pleasant and productive one. In his opening speech, the Minister said that "peace could not be maintained by force, only by understanding", something that could not fail to make delegates reflect.

The agenda of the meeting, which took place at the very gates of apartheid and was highly symbolic be-

cause of it, included two items of particular political import, in accordance with the Inverness session of September 1985. They were a speech by Desmond Tutu, the Nobel Peace Prize winner, and a hearing of all the parties involved in the Southern African problem.

But Desmond Tutu could not make it to Mbabane and internal difficulties prevented the hearing from taking place, so political enthusiasm waned and neither lengthy discussion of why this had happened nor an exchange of views on the situation in Southern Africa were really enough to get it going again. At one stage, it even looked as though things would break down, as the positions on the hearing seemed so clear-cut from the word go, and it was only the great sense of responsibility and the very firm desire of all concerned to do their best to overcome their differences and reach common, constructive approaches that made it possible to adopt a resolution on Southern Africa.

The hearing — a lost opportunity

The important resolution on Southern Africa that was adopted in Inverness, with only one vote against, (paragraph 22) called on *"all those involved in the problems of Southern Africa to come and speak to it at the next meeting"*.

The Bureau of the Assembly, whose job it was to see that the resolution was implemented, met in Brussels on 2 and 3 December and agreed fairly quickly to divide the hearing into three parts — on the Frontline States (including SADCC), Namibia and South Africa. The problems started with the third group and the question of whether representatives of the South African Government ought to be invited. The European members, bar the Communists and the Rainbow Group, thought they should, but the ACPs voted unanimously against this.

A compromise proposal, whereby National Party MPs but not direct representatives of the Botha Government should be invited, met with the

same fate and subsequently the lists of invitees for the two other groups were also thrown out by a majority of Europeans. So it was an impasse, and the Bureau had to inform the Assembly in Mbabane that it had been unable to carry out the instructions received in Inverness. This created profound unease in the Assembly and gave rise to a lively debate that brought out old rifts and threatened the political strength forged at Inverness.

Almost all the European speakers—and there were many of them—were in agreement. It was clear, they thought. What was meant by "all parties" was obvious and the Bureau had to "implement the resolutions" and not "censure the discussions of the Assembly". They reminded the ACPs that "promises have to be kept". Yves Galland (Lib., F), the co-author (with Guy Guermeur, RDE, France) of the amendment which led to the famous paragraph 22 in Inverness, was vehement in telling the ACPs that the text was "clear, biblical and transparent". Guy Guermeur recalled what Giovanni Bersani had said in Inverness: "From Botha to the ANC, everyone had understood", he said. "The

aim of the hearing was to commit ourselves to a peaceful solution, to dialogue rather than to conflict". "We missed the opportunity of the century", Andrew Pearce (ED, UK) continued. And many other speakers insisted that the hearing should take place at the next meeting.

The ACP interpretation of paragraph 22 was quite different. There was no doubt at all, in their eyes, said the Liberian representative. The Assembly was committed to fighting apartheid, so how could it invite people who practised it? What could they tell us?

For the ACPs and one or two rare Europeans from the Communist and Rainbow Groups, it was obvious that the invitation was for all parties that were fighting apartheid. That is to say, the Nigerian representative pointed out, "all opinions in the anti-apartheid movement". The Fijian representative said "we are dancing to different tunes... and the ACPs will countenance no contact with the Pretoria Government or its representatives, who are the incarnation of apartheid. Inviting them and listening

to what they say would have been an affront to our dignity". The Guyanese representative echoed this, firmly stipulating that the ACPs would not debate with the "criminals of South Africa".

Raymond Chasle, the Mauritian Ambassador, was an important moderating influence in the debate, although he was quite unambiguous in defending his group's position. Any misunderstanding about the meaning of one of the paragraphs in the resolution could not be blamed on the ACPs. They had never believed that invitees could be any other than those who were fighting apartheid. He reminded the meeting of the Community's commitment to fight alongside the ACPs and of the fact that all the African ACP countries belonged to the OAU and would not take any step that might be interpreted as recognition of the Pretoria Government. The Pacific and Caribbean ACPs had apparently taken similar decisions. "The Bureau has made the right decision", he said. If it had taken decisions that were out of line with ACP ideas, many delegations would not have come to Swaziland. Tanzania backed this up, congratulating the Bureau which had "tried to implement paragraph 22 and had read it jointly with Annex I of the new Convention".

Senegalese Ambassador Sy took a subtly different approach. He pointed out that the ACPs spoke with one voice on apartheid and that they had a clear position on the dialogue that needed to be held by all those directly involved in South Africa. "If we can contribute, that's fine". As far as the hearing was concerned, "we should have played the game... the South African Government would have backed out". Since it is based upon a party, "we could have invited all the parties". He urged everyone to be careful. "There is no point in this debate becoming an excuse for rancour and fighting on the substance... We must not stop half way. We must be reasonable" — something which echoed what Mhambi Mnisi had said at the outset.

Marco Pannella (NI, It.) struck a completely different note. "Although apartheid is dreadful", he said, "the death rate in many countries of Africa is dreadful and if we are to be credible, we should be doing something about



A moment's relaxation between two busy sessions. (l. to r.) Emile Mworoha (Burundi), co-Chairman of the Joint Assembly, Edwin Carrington, Secretary-General of the ACP Group, Mhambi Mnisi, Foreign Affairs Minister of the host country and Giovanni Bersani, the European co-Chairman

protecting the right to life wherever it is threatened".

Giovanni Bersani (the co-Chairman) concluded by saying that Inverness was an important step forward in the discussion on Southern Africa. For the first time, the Assembly had given practical details of how South Africa could be pressurized. People wanted to move from words to deeds. Now a problem had arisen over the application of paragraph 22, which had to be separated from the rest, and it was up to the Assembly itself to decide when the resolutions were voted on.

What was the outcome? Intensified contact between the two parties during the session, with Raymond Chasle and Peter Price (ED, UK) being the prime movers for the ACP Group and the EEC respectively, led to an eleventh-hour compromise which certainly leaves the door open, although it does

not provide an obvious answer. The compromise text states that the Assembly: "*instructs the Bureau to pursue its examination of paragraph 22 of the Inverness resolution and to explore ways and means to encourage immediately and before the next meeting of the Assembly a process of dialogue within South Africa involving all the authentic representatives of the majority black population and the authorities of Pretoria*". This text should be seen in the light of the debate held in Mbabane for a better understanding of the situation. Let us hope that we do not need to consult the oracle at the next meeting in Greece for a final answer to the question!

Debate on Southern Africa

As the hearing did not take place, there was very little fresh information



Although the hearing of all the parties involved in the problems of Southern Africa was not held, the Joint Assembly still managed to have a thoroughgoing debate on this topic

in the debate. Members were unanimous in condemning apartheid and they all agreed that this "hideous" system had to be done away with. It was an "inhuman and diabolical régime" according to the Zimbabwean representative and the "anachronism of the century" according to the Cameroonian representative.

Many speakers, particularly on the ACP side, thought the situation in South Africa had got worse since Inverness. There were more and more arrests and trials, there were more and more victims and destabilization activities were on the increase. "The blockade of Lesotho obviously has something to do with recent events in the country. Pretoria's target at the moment seems to be Botswana", Ambassador Sy said. "How long will South Africa go on defying international law unchallenged?"

There was a broad consensus on the need to mobilize all energies and resources to help the Frontline States which, the Lesotho representative felt, "South Africa has turned into a football pitch". Everyone agreed that practical action on South Africa was what was needed now, but although the general aim was clear, there was still a difference of opinion as to how to reach it.

"The voices of reason have fallen on deaf ears", the Kenyan representative maintained and, since South Africa is not willing to understand, then "we have to make it do so — by force". Many MEPs said they preferred a peaceful solution. Some of them questioned yet again the effectiveness of taking sanctions against South Africa, while all the ACPs and a large number of MEPs pleaded in their favour. The Kenyan representative mentioned a plan (which European banks would be supporting) to save Pretoria from its present heavy debt and made a vibrant appeal for the European countries involved to drop the plan.

Many of the speakers thought that Europe had to react with considerably greater determination and the resolution adopted at the end of the debate indeed stressed this. The Twelve were duly invited to make a bigger effort

than ever before to obtain the "rapid, peaceful abolition of apartheid". They were also invited to stop sending arms to South Africa, to control the implementation of the measures adopted on 10 September 1985 and to look both at new "positive" and restrictive measures to be taken as a matter of urgency (see the speech by the President of the Council below).

The resolution also underlines the importance of joint action, particularly by the Twelve, the USA and Japan, and calls on the European ministers to consult with the other Governments with a view to coordinating what they do. It refers to the meetings scheduled



Christopher Jackson (ED, UK), the Rapporteur, was backed up in his attempt to produce a development scenario for the year 2000

for Harare and Lusaka over the same period. The Community is asked to give more aid to the SADCC so as to reduce the extent to which its members depend on South Africa.

In conclusion, as Giovanni Bersani said, the compromise "illustrates our spirit of responsibility". Just imagine what would have happened if no compromise had been reached here, at the very gates of apartheid, and on the eve of the SADCC meeting in Harare and the EEC and Frontline States Foreign Affairs Ministers' session in Lusaka too!

General report — Horizon 2000

There was still one important item on the agenda — the introductory report by Christopher Jackson (ED, UK) on the implementation of Lomé and ACP-EEC cooperation, a subject which many speakers felt should be the Assembly's main concern. It certainly generated a lot of interest and a fruitful debate. Mr Jackson's ambitious proposal will be taken further at the next session.

In his much-applauded introduction, Christopher Jackson outlined his thoughts, noting that, in most ACP countries, a lot of progress had been made in the control of certain diseases. Life expectancy had improved. Infant mortality rates had fallen. Literacy rates had risen and many countries were bringing in policies to remedy food shortages.

But there were many problems too. In spite of all the ACP governments had done and in spite of the thousands of millions spent on aid, the vital statistics for many ACP countries were still gloomy. Their debts were greater. Per capita agricultural output was falling. The outlook for raw material exports tended to be less than encouraging. Forests were shrinking and there were vast areas without trees at all. The deserts were advancing, the volume of trade among the ACP countries was still, alas, low and in some areas there were troubles, civil war and war between nations.

Basic questions...

Some of these successes and problems were to do with Lomé. So Christopher Jackson asked one or two basic questions — how much progress do the ACPs expect by the year 2000, in only 15 years that is to say? And can a long-term view of things give us any useful guidelines for action for Lomé III?

What is the present situation in development? What development scenario can we realistically suggest for the year 2000? And what can ACP-EEC



The Courier

Lorenzo Natali insists on the need to strengthen phase two of cooperation, i.e. the implementation of the indicative programmes

cooperation do between now and the year 2000?

.... and basic topics

The Rapporteur proposed six of these — macroeconomics, demography, ecology, debt, external trade and the effectiveness of ACP-EEC cooperation.

The debate, in which there were many ACP and EEC speakers and Mr Lorenzo Natali himself, began by backing up Christopher Jackson. They agreed they should take a longer view and they agreed that this should be the basis for deciding on useful guidelines that would be of practical help in making ACP-EEC cooperation more effective, although some members felt it would be wise to avoid duplicating work done elsewhere (in the Brandt Commission, the Club of Rome, the Club of Dakar and so on) and, most important, avoid sacrificing short-term problems to long-term benefits. Members also felt that they should devise a multi-stage strategy and a timetable for implementation of the practical guidelines that emerged from the report.

An impressive number of suggestions were made to help Mr Jackson in his work. Subjects that inspired the speakers included demography, the role of women in this field and in development in general, trade (especially commodities and sugar), investments, debt, the use of food aid, rural development, the special problem of island ACPs, the effects of the CAP and of EEC macroeconomic data on the ACPs, the rationalization of aid and the need to respect the 0.7% target, the need to consider space technology in the present discussions...

Vital need for short-, medium- and long-term action, says Mr Natali

Lorenzo Natali, a Vice-President of the Commission, made an active contribution to the general discussions of the Jackson Report, welcoming both the approach to the subject matter and the subjects themselves, which, he felt, reflected the political role of the Assembly which had to "maintain the movement and the dynamism of our relations... with the constant aim of prospecting and paving the way for the future".

He mentioned the deterioration in the ACP economic and financial situation and the boosting of the effectiveness of EEC aid, reminding the meeting of the vital need of short-term, medium-term and long-term action. What the EEC had done for the eight countries that had suffered the worst drought, the Dublin Plan and the Rehabilitation and Revival Plan, were all short-term affairs. The recent Commission proposals on fighting desertification were both medium- and long-term affairs, as was the new approach to aid programming, "that keystone of the quest for effectiveness... which puts support for sectoral policies at the very centre of the cooperation process".

By the end of 1985, 30 indicative programmes had been signed. The new approach based on dialogue and concentrated aid "has been implemented without any real problem... Most of the countries involved have decided to focus Community aid on support for a rural development strategy aimed at ensuring greater self-sufficiency or regular food supplies".

Lorenzo Natali insisted on the need to strengthen the second stage of cooperation, too, i.e. implementing the indicative plans and, especially, ensuring the continuity of action by the EEC and the ACP country in question and putting the right sort of priority on developing human resources and providing people with training.

Commissioner Natali pleaded for true regional cooperation and then went on to explain the Commission's new plan for the protection of natural resources and the anti-desertification campaign (see article on page 13).

In the matter of trade development, there were three complementary aims to pursue, Mr Natali maintained. These were the improvement of the ACP external trade balance (as measured by their current balance of payments), the growth of export earnings (in particular by diversifying production) and geographical diversification. "Intensive utilization of the new instruments of Lomé III" would be required to meet these aims, he said.

Lorenzo Natali approached the debt problem by saying that "most of the African debt, except in the case of Nigeria, is owed to official bilateral and multilateral development organizations, including some in the countries of Europe, and so they have a decisive part to play in seeking both direct solutions (such as rescheduling) and indirect solutions (increased aid, extra-project assistance etc). "Conversely", he added, "I should emphasize the fact that whatever is done in this field will depend on reforms to be undertaken in the countries in question — without which the remedy could well be inadequate. It would relieve the situation, of course, but it could not cure it. This is a problem with complex ramifications and it has to be dealt with carefully on a case-by-case basis".

During the debate, Mr Natali responded to some comments on Stabex, saying he felt that this was an instrument that would "soon weaken under the weight of a number of unforeseen objectives". He was very clear about the sugar price negotiations, saying that he did not intend to dissociate himself from the outcome of discussions between all the European Institutions.

What the co-Presidents of the ACP-EEC Council of Ministers said

Mr van Eekelen, President-in-office of the EEC Council of Ministers, summed up the Member States' position on apartheid. They totally rejected the system. They were firmly opposed to violence in South Africa. They appealed to the South African Government to bring in a programme of reform to abolish apartheid without delay. They wanted to see a national dialogue between the South African Government and the real representatives of the South African people established as soon as possible. They wanted the immediate and unconditional liberation of Nelson Mandela and other political prisoners, they wanted detention without trial stopped and they wanted to see an end to forced moves and the abolition of the pass

military attachés in South Africa, the suspension of cultural and scientific agreements and contact in the field of sport, restrictions on exports of crude oil and sensitive products to South Africa and restrictions on any form of cooperation in nuclear matters".

The recent measures destined to offer support for groups and organizations working for peaceful change in South Africa include, in particular, "educational aid programmes for the non-white population, an intensification of contact with non-whites in the fields of politics, union affairs, business, culture, science and sport and the launching of programmes to inform Member States' nationals living in South Africa".

Paris, was still a valid one. "The Community and the Member States are actively involved in the present reflexion on this... and we hope that the next meeting of the IBRD Development Committee will be a fruitful one".

Lastly, Mr van Eekelen mentioned the special UN session on Africa. "We are doing our utmost to see that the preparatory work now being done in New York is such that this special session is crowned with success", he said.

The President-in-office of the ACP Council of Ministers, Imro Fong Poen, also devoted a large part of his speech to apartheid and South Africa. "We believe in the sanctity and integrity of the human person regardless of the colour of his skin. That country, virtually alone in the world community, believes in a philosophy which makes the colour of skin the measure of the quality of a human person. And, moreover, it does so in such a way as to try to turn the overwhelming numerical majority into the political and social minority. Furthermore, apartheid threatens the peace of the entire world".

The President paid tribute to the host country and the other nations in the region "which have fought and paid great sacrifice in defence of their spirit of national independence and their respect for human dignity". He also mentioned the meetings in Harare and Lusaka and urged the Community "to rise to the demands of this crucial moment in the history of our ACP-EEC cooperation".

Mr Fong Poen then went on to congratulate Mr Jackson for the general report. He also encouraged the three working parties. He reminded members of the economic problems which the developing countries had to face and which were a threat to their stability as well as to peace and international security. He insisted that it was a good thing, in this situation, to ratify and implement the new Convention as quickly as possible. "It is difficult—indeed impossible—to find its equal in today's world", he added. ◊



(l. to r.) Mr van Eekelen, President of the EEC Council of Ministers, Mongo So'o, Chairman of the ACP Committee of Ambassadors and Imro Fong Poen, President of the ACP Council of Ministers

laws, the Group Areas Act and kindred legislation.

The President reminded the meeting of the approaches made to the Pretoria Government and the policy it was then decided to adopt towards South Africa. "We decided to maintain the Twelve's pressure on South Africa and harmonize their ideas on a certain number of measures — such as a strictly controlled embargo on exports and imports of arms and paramilitary equipment to and from South Africa, the refusal of any form of military cooperation, the recall of

Mr van Eekelen also spoke in the debate on Christopher Jackson's "excellent introductory report". He will be putting top priority on examining the anti-desertification plan submitted by the Commission to the Council. He stressed the importance of the Lomé III chapter on private investment and said he hoped that the working party mentioned in the Convention could start work in the near future.

On the subject of debt, the President said that a case-by-case approach, as applied by the Club of

The Courier

Christopher Jackson concluded by taking note of all the speeches. He said he would pursue contact with both sides. He referred to the very first Spanish contribution to the Assembly, a speech in which an MP had said—“We should use cooperation as an expression of hope”—as he felt it was the perfect way to end the general debate and to continue his work.

Question time

True to tradition, the Development Commissioner answered a number of questions, this time from Mrs Waruhiu (Kenya) on what the Commission intended to do about the Inverness resolution on the role of women in development; from Margaret Daly (ED, UK) on relief for famine victims and from Andrew Pearce on whether the Commission had checked the statements which Médecins sans Frontières (MSF) had made about the Ethiopian resettlement programme. Lorenzo Natali recalled the European Parliament's discussion of these subjects, repeating the fact that “we cannot ignore certain events that seem to reflect a certain lack of respect for basic human rights nor can we be indifferent to the practical conditions of certain population transfer operations which have caused genuine suffering”.

Mr Natali dealt with the subject of Community aid for the financing of programmes to transfer people from the north to more fertile areas of Ethiopia. “If the Government approached the Commission for help in transferring these people, it goes without saying that the conditions of any involvement would be examined in detail, in concert with the Ethiopian leaders, so as to protect the principles on which our aid has always been founded”, he said.

Ambassador Berhane of Ethiopia spoke in the debate to point out that the chapter of the Association Démocratique des Français à l'Etranger (ADFE) in his country had officially disassociated from MSF. ADFE said that MSF's claims were exaggerated and likely to mislead public opinion at a time when Ethiopia, like other countries in the Third World, urgently needed international solidarity to continue.

Lastly, Katharina Focke (Soc, D) put several questions about the use of

the funds earmarked for apartheid victims under Article 953 of the Community budget and on assistance to SADCC and IGADD (the Inter-Governmental Authority on Drought and Development). Mr Natali answered by saying that the fact that the Heads of State in these countries had had serious differences and conflicts in the past but had decided to cooperate actively was “good reason for satisfaction and showed the importance that these African leaders attached to the anti-desertification campaign”. Lorenzo Natali assured the Assembly that the Commission was “entirely willing to look at a contribution to the IGADD programmes in a favourable light, provided they were part of a valid approach to regional cooperation in this field”.

A rather exceptional thing happened when Mr Van Eekelen, the President of the EEC Council, also agreed to answer questions from the Assembly, although he made it clear that he was only giving his personal opinion. This was a much appreciated gesture. When asked about the Lusaka meeting, the President told the Assembly that all the EEC countries would be represented, something which underlined the importance the Community attached to it.

When South Africa was mentioned, the President referred to the decisions on sanctions, particularly the scope of the embargo on petroleum exports, the Twelve had taken on 27 January. He confirmed EEC support for SADCC. He answered a question on ACP debt and the Baker Plan, saying that the Presidency would be attempting to define a Community position on the main items on the agenda with a view to the forthcoming international meetings.

Reports by working parties

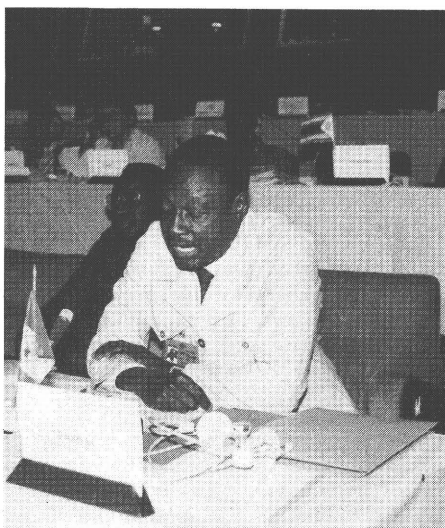
Lastly, the Assembly looked at what the three working parties (women and population in development, the ACP debt problem and rural development and environmental problems) had done. Investigations were well under way, although the working parties had only started and there was a long way to go before they could finalize the analyses and come up with conclusions and practical measures.



Mr Anyumba (Kenya) ...



Ambassador Iroha (Nigeria) ...



and Mr Sene (Senegal) explained how reports—on women and development, ACP debt and rural development and the environment—were faring

Women and development

As Rapporteur Rose Waruhiu was absent, Mr Anyumba, a fellow Kenyan, explained the background to what he called a "very vast, very complex and very sensitive subject".

Demographic growth, the decline of development programmes, new strategies that take account of cultural and social development, practical information about demographic factors in the ACP countries, migration, beliefs and practices linked to tradition, health services, disease control, child welfare, nutrition, family planning and the role of women's organizations were just some of the things the working party would be looking at.

"There is no general answer to the demographic problem. It has to be examined in the cultural and social framework of each country", said the Rapporteur. "The improvement in women's roles and status will have a positive influence on the life and the dimension of the family".

The ACP countries were invited to give the working party all the information they had available. And a special questionnaire has been drawn up to provide additional details from all those directly involved with these issues in the ACP countries.

Various speakers, including Renate-Charlotte Rabbethge (PPE, D), the Chairman of the Working Party, strongly insisted on the importance of this questionnaire and the need to

have answers from experts, women's organizations, universities and so on rather than from bureaucrats.

The ACP debt

Ambassador Iroha from Nigeria, the Rapporteur of this working party, explained what had been done so far. They had met in Yaoundé before the Joint Assembly and held discussions with the World Bank, the African Development Bank, the Central Bank of West Africa and various Cameroonian ministers. Many more people would be contacted, as the initial job of the working party was to hear what people involved had to say, Mr Iroha said.

This should lead to the situation being properly diagnosed before any treatment was prescribed. Although the present African debt is not dramatically large, it is increasing at an alarming rate and having a paralysing effect on the ACP economies.

How could the problem be solved? Immediate measures had to be found as a basis for longer-term solutions. As Mr Iroha saw it, the value of the working party would not depend on technical expertise, but on the political will of the Community and the ACP Group to solve the problem. As the Community had considerable influence in the major international financial institutions, it would be present at the big meetings due to be held soon. The working party wanted to hear the conclusions of these meetings before formulating any of its own.

A short debate followed Mr Iroha's report. The working party, under the chairmanship of Guy Guermeur, will be continuing its investigations and reporting to the Assembly again at its next meeting.

Rural development and the environment

The report now being prepared should, of course, respect the essentially political bias of the Joint Assembly and pay less attention to the technical aspects of rural development than to trying to highlight the principal political, economic and social problems in the ACP countries and making recommendations on suitable solutions. Mr Sene (Senegal), the Rapporteur, brought out the many implications of this subject and the very vast area it covered, saying this was why the working party had decided to make a selection and concentrate mainly on agriculture and the development of herding and fishing as well.

"The working party thinks", Mr Sene said, "that what was needed was some practical work based on facts and figures that would generate objective conclusions whereby we could harmonize development policies and take the necessary measures to preserve our natural surroundings". The working party had held preliminary talks and devised a working method and a timetable. It hoped to be able to present an interim report at the next session of the Joint Assembly. It intended, as Chairman Hemmo Muntingh (Soc, NL) pointed out, to adopt an integrated approach to the problem, as rural development could not be separated from environmental issues.

Next meeting

Co-Chairmen Giovanni Bersani (PPE, It) and Emile Mworoha (Burundi) led the discussions with a serenity that no doubt made its contribution to the positive outcome of the meeting, at which 12 resolutions were adopted. The next session will be in Greece from 22-26 September and the annual meeting with representatives of ACP-EEC economic and social circles is scheduled for 26-27 June in Brussels.

Fernand THURMES

Resolutions were adopted on:

1. South Africa and Southern Africa;
2. implementation of the social aspects of Lomé III and the role of ACP-EEC social partners;
3. the recent meeting of Ethiopian and Somali Heads of State in Djibouti and the problem of refugees in Somalia;
4. the creation of an Inter-Governmental Authority on Drought and Development (IGADD);
5. financial and technical cooperation and Suriname;
6. the guaranteed price for ACP sugar in 1985/86;
7. the food crisis in Sudan;
8. contracts on common wheat exports from the Community to West Africa;
9. the situation in Chad;
10. the situation in Namibia;
11. the activities of the RNM (Renamo) terrorist organization in Mozambique;
12. US support for UNITA.

PROTECTING NATURAL RESOURCES

Fighting desertification in Africa

Less than three months after the appearance of the Rehabilitation and Revival Plan (see Courier No 95, pages 8 & 9), the Commission has adopted an important communication to the EEC Council and Parliament. It deals with the protection of natural resources and the anti-desertification campaign in Africa, in particular.

Vice-President Lorenzo Natali presented this new plan of action at a press conference in Brussels on 20 January and we outline it below.

The deterioration of natural resources has got out of hand in Africa. The effect on the environment is spectacular in the arid and semi-arid areas of the Sahel and in the highly populated and/or mountainous regions of, for example, Rwanda and Burundi, on the high plateaux of Guinea and Kenya, in Ethiopia, on the communal lands of Zimbabwe and in the Kabyle mountains. Typically, this means a drop in the natural fertility of the soil, erosion and laterization and the withering and ultimate disappearance of the plant cover. Desertification in the strict sense of the term is the extreme phase of this. Land loss through deterioration and desertification is advancing at the rate of 6 million ha p.a. — 60 000 km², an area almost twice the size of Belgium.

Wanted — a plan of action and a Community approach

The European Council that met in Milan in June last year was aware of the problem and so it requested the Commission to come up with a European anti-desertification plan which all European Community and bilateral aid sources would both put priority on and commit themselves to for a long period of time, organizing their activities coherently by means of a proper coordination structure.

The plan of action which the Commission has just put to the Council is

the upshot of that request, and as such constitutes a first step in the implementation of the chapter in Lomé III or desertification. It is the Community's response to one of Africa's fundamental, long-term problems and part of the overall approach the Community has devised in the light of all the aspect of all the difficulties with which the continent of Africa has to contend.

"It began by responding to urgent, short-term problems, to famine and so on, with the Dublin Plan and now it has brought out the Rehabilitation-Revival Plan to help the worst-hit countries rehabilitate their agriculture and cope more effectively with any further drought" explained Mr. Natali.

"These short-term actions would nevertheless have no sense if we did not, at the same time, address the more fundamental problems. In essence, to reverse this trend, we will have to change structures, behaviour and knowledge ... This can't be achieved from one day to the next, and it means that one has to take the medium- and long-term view into account, that we decide on a programme that attacks the root of the problem. It is with this in view," continued Mr. Natali, "that the Commission began the programming of Lomé III, in which African countries have most frequently put the emphasis on rural development and food security. In the same spirit, the Commission adopted on 15 January 1986, a Communication to the Council and the Parliament on "Protecting Natural Resources — Fighting Desertification in Africa".

Why give so much importance to the protection of natural resources and the fight against desertification?

"Because environmental problems and desertification are getting worse and do not respect frontiers, which means that they are a phenomenon which will have consequences for a large part of Africa" deemed Commissioner Natali. "It is not so much a case of the Sahara advancing, but the fact that desertification is man-made,

caused by man's everyday efforts to try and feed himself. It is the result of an imbalance between man and his environment. The desert isn't advancing as is commonly said, but it is being created where the soil is degraded".

Concentration, coordination and cohesiveness

The fight against desertification waged hitherto has not had enough impact because actions were dispersed, insufficient in number and lacked follow-up. Each broad-based action of this nature should reach a minimum threshold—a critical mass—to set in motion a process of reversing the trend, says the Commission document. "This is the objective which we have fixed for ourselves in trying to push for a general strategy which will concentrate and coordinate available means to achieve maximum effectiveness and coherence. These are our key words for our strategy in this field: *Concentration* of means in the priority sectors, *coordination* of the activities of aid organizations and governments concerned to achieve *coherence* of action".

In its new Action Plan, the Commission is putting forward guidelines and political priorities which cover production methods in farming and livestock herding, anti-erosion measures, reforestation, research and policies towards population growth and migration.

According to Mr. Natali, "these guidelines imply lasting changes in the behaviour and habits of African peoples and necessitate economic, political and administrative reforms on the part of the governments concerned. The programming of Lomé III, now under way, has demonstrated to us how much priority African countries themselves have given to the fight against desertification and to our assistance in this area. I was able to gauge the feeling", continued the Commissioner, "when I took part last November in the Ministerial Conference on Desertification in Dakar, at

which 27 countries were represented. Awareness of the problem of desertification is very high in African countries, as is their keenness to attack this 'supra-national' problem through regional cooperation. This was demonstrated again on 15 January last by the creation of IGADD, the East African Inter-governmental Authority on Drought and Development, which has brought together Ethiopia, Djibouti, Kenya, Uganda, Sudan and Somalia. The Heads of State of these countries met at the first summit of this new institution in Djibouti. Even these nations, some of which have long been divided by political tensions, found the strength and the political will to get together for the fight against desertification, the common enemy".

Practical and broadly-based action

The communication from the Commission does not simply propose a single strategy for the fight against desertification but proposes at the same time a series of operational actions, significant in the context of this strategy. Two of them, on a broad scale and whose impact might well meet the challenge posed to man by desertification, are worthy of notice:

- taking in hand the north and east faces of the Fouta Djallon Massif and the mountains on the Libero-Guinean border, as well as their foothills in Guinea. This mountainous region is well-watered and is a veritable potential water-tower for West Africa, a place where the great rivers of the region have their springs. In essence, this will be achieved by controlling the flow of the waters of these rivers which, channelled into irrigation, can increase by a considerable margin the intensity of agriculture (an irrigable potential of several million hectares). To achieve this, the ground will have to be prepared, river erosion halted and a great number of trees planted;
- satisfying the domestic and artisanal energy needs of major African cities, such as Lagos, Abidjan, Dakar, Kinshasa, Ouagadougou and Bamako, whose annual population increase is of the order of 5%. Natural wood, or wood in the form of charcoal is the main supply of energy.

However quickly land is brought under cultivation, or forests are

planted close to urban areas — and these must continue at a high level — wood consumption, at least for the next few decades, will outstrip natural replenishment, and will lead to the eventual destruction of woodland in a radius round towns which may reach 200 km. The consequences for urban and rural dwellers alike will be very serious, since it is most likely that some zones will have reached the stage of irreversible desertification.

Means should be found to stimulate the use of fossil energy, oil, gas and coal, even if they must be imported, in certain towns, in order to relieve the ecological pressure caused by the demand for woodfuel. The seriousness of the situation and the urgent need to find a solution both indicate action of the broadest scope to isolate, as far as possible, the towns from their hinterland in energy terms".

Pooling all resources

At Community level, the Plan envisages the pooling of all the means at the Community's disposal; Lomé III, food aid, NGO co-financings, financial protocols for the Southern Mediterranean and specific budget lines.

Current programming has taken the new objective into account to a considerable extent. Agreements of principle must now be translated into real action. In implementing the regional indicative programmes, the Plan suggests that the Commission fixes with its various counterparts an agreed quantitative objective to put towards specific actions in the fight against desertification.

In implementing the new protocols for the Southern Mediterranean, priority will also be given to the fight against desertification.

A part of the food aid should also be put towards "Food for Work" programmes or, through the use of counterpart funds, be used to cover certain local costs of direct action to protect the environment. Specific allocations could be made to this end.

The Action Plan also underlines the important role to be played by the NGOs, by virtue of their position and the nature of their work.

Finally, specific credit lines will continue to be used for the same pur-

pose, giving to the Community an increased flexibility and initiative to promote a cause which impoverished countries tend to push into the background.

To reach the critical mass required to make a significant impact on the phenomenon of desertification, the Plan envisages the reinforcement of the Community effort by an efficient coordination of the aid efforts made bilaterally by Member States. This combination of efforts will require the definition of common principles of action based on the guidelines proposed in the communication from the Commission, as well as close coordination on the ground. Naturally other donors will be free to join this collective effort.

A basis for discussion

Mr. Natali indicated that "this communication will form the basis for discussion with Member States with a view to preparing a Community standpoint at different international Conferences: that on trees and forests (SILVA) from 5-7 February in Paris; that of the IBRD-IMF Development Committee next April, where the problems of Africa, and in particular its long term development, will be discussed; finally, the Special Session of the UN General Assembly in May 1986 which will look at the critical economic situation in Africa from a number of aspects, including the long term".

"Furthermore, on the basis of discussions already in progress with Member States within the framework of the Council, certain common lines of approach in this field could be decided at the next Development Council on 17 April".

"When facing the problems of the African continent, Europe wishes to show itself cohesive and effective", Mr. Natali added, "She is determined to tackle and overcome the problems of development in their totality. Aware that the long term has started today, the Commission has chosen to adopt an approach which will cover the short, the medium and the long term. I am convinced that we are on the right road, even if that road promises to be a long and a hard one". ○

ACP attendance at international trade fairs (*)



ACP stands at the Milan fair

The ACP countries see international trade fairs as one of the best means of implementing their trade promotion policies. For several years now, the Community has been providing them, under the Lomé Convention, with the backing they need to improve their image and boost their sales on foreign markets.

Community support goes to a series of integrated schemes which include, in particular, identifying a country's productive potential and export capacity, improving its marketing structures, adapting its products to the external markets, choosing the best trade fairs, giving technical assistance to the bodies in charge of foreign trade and providing basic and further training for fair staff.

(*) An article from the Trade Development Division of the Directorate-General for Development.

Most of the ACP countries do their utmost to ensure that they attend fairs under the best possible conditions, that they are represented by qualified people who know how to do business and that exportable high-quality products are on display.

As well as managing the funds earmarked for trade fairs, the Commission also coordinates and organizes attendance and analyses and assesses the commercial results of the various ACP countries during and after fairs. This is done within the framework of regional cooperation.

Financing

Since Lomé II, there have been two sources of financing:

- the regional cooperation programme;
- the national indicative programmes.

The Commission's main contribution is to put up ACP stands at whatever trade fairs are thought to be best

when it comes to selling tropical products and developing the overseas tourist industry.

The funds which the Commission provides every year cover the cost of hiring space at fairs where the Member States are not involved and building and decorating stands, plus a standard sum (ECU 11 000 per country per fair) for transport.

Table 1 gives figures and data for 1983-85.

Assessment

It has always been difficult to evaluate the commercial results which a country gets during and after attending a trade fair. It is a special problem for an ACP country to size up the situation and far more so than for a company that displays a specific article which is produced and marketed by a solid, well-organized structure (and infrastructure).

The ACPs are in fact going to international trade fairs and exhibitions,

Table 1: Summary of ACP attendance at fairs and exhibitions with financial and technical assistance from the EEC

Regional programme				National indicative programmes (1)		
<i>Financial commitment (Regional cooperation)</i>	<i>Number of recipient countries</i>	<i>Number of trade fairs chosen</i>	<i>Number of stands</i>	<i>Number of recipient countries</i>	<i>Number of trade fairs chosen</i>	<i>Number of stands</i>
1983: 1 760 000 ECU	43	Europe : 13 Africa : 10 23	119 30 149	11	Europe : 11 Asia : 2 Africa : 1 14	17
1984: 1 650 000 ECU	54	Europe : 13 Africa : 6 Australia : 1 20	130 37 6 173	12	Europe : 14 Africa : 3 17	23
1985: 1 940 000 ECU	50	Europe : 14 Africa : 4 Australia : 1 19	144 13 6 163	13	(provisional) Europe : 15 Africa : 5 20	28
(1) Total commitment authorization of ECU 2.4 million covering the period from 1 July 1981 onwards.						

alongside more developed countries, to display a range of products that includes coffee, timber, tropical fruit, textiles, spices, hides and skins, arts and crafts and so on.

In spite of the fact that their means are very limited, the official representatives and company staff from ACP firms have to meet the demands of visitors to a major event and give as complete a picture as possible of their country's economic activities.

They have to publicize actual production capacity, record the demand for supplies from potential importers and then relay the information to the relevant firms in their countries so they can give an immediate response and ensure that there is a practical follow-up to the request for goods.

Information and data on contracts concluded are, alas, very vague and impossible to check in either Africa or Europe.

As far as we know, there is no specialized organization that produces a precise, systematic evaluation of the commercial benefits of a country's appearance at an international trade fair.

But it is worth emphasizing the considerable possibilities that some ACPs have of selling their main products, which are an increasing success with

professional visitors to European trade fairs.

Although the availability of some of the most popular products—especially coffee, tea, fresh and preserved fruit, seafood and hides and skins—can be a matter of chance, the estimate of overall demand which the Commission produced from reports and data sheets written up by 20 or so ACP countries is a useful contribution when it comes to evaluating the European market demand for tropical products.

Table 2 gives figures for the value of demands for products to be supplied by those ACP countries which attended big trade events in 1983, 84 and 85. They are only provisional estimates, of course, and there needs to be further definition and detail for each country, so we can see how far the business contacts made on the stands lead to firm contracts.

But the commercial results set out in the table are significant nonetheless and a useful pointer to ACP export potential.

Success

Groundwork for promotion of the product right at the production stage, qualified representatives of the production sector who can conclude busi-

ness contracts on the stand, meetings with interested parties from the trade at fairs and the guaranteeing, of technical and commercial follow-up of future contracts are the keys to any promotion policy. And the choice of trade fairs is important, too.

Although such broad international fairs as Milan, Paris and Barcelona are indeed useful, results would suggest that the ACPs should be increasingly encouraged to go to the specialized events such as the food fairs in Cologne, Paris and Barcelona and to display hides and skins in Paris, tourist attractions in Berlin, Paris, London and Milan and textiles in Paris, Dusseldorf and Abidjan.

It has also been found that ACPs with decently structured foreign trade centres, dynamic trade organizations and competitively priced exports which are displayed on the stand by responsible people from big companies get the greatest benefit from trade fairs.

Experience has shown that appearance at a trade fair must be more than a publicity campaign or a prestige display.

It has to be the culmination of a production-marketing policy undertaken early in advance. This is what brings success. ○

Table 2: Estimated commercial results of ACP countries appearing at trade fairs and exhibitions in 1983

(Based on reports by ACP representatives running stands)

Fair or exhibition	Value of recorded demands for supplies (ECU)			Remarks
	1983	1984	1985	
1. BERLIN: Tourist fair "Caribbean Village" Estimated tourist earnings by Caribbean countries	19 840 000	29 701 000	30 294 000	Full data for the countries of Africa and the Pacific not available
2. BERLIN: Overseas imports fair	4 119 224	1 232 748	18 446 533	(1)
3. COLOGNE: ANUGA food fair	2 569 298	(Not held)	77 179 250	(2)
4. PARIS: International fair	832 115	432 752	4 637 276	(3)
5. PARIS: SLAL food fair	(Not held)	52 336 692	(Not held)	(4)
6. PARIS: Leather week	9 074 134	14 911 188	25 756 146	(5)
7. MILAN: International fair	7 388 329	16 084 000	38 317 492	(6)
8. BARI: Levant fair	Negligible results	1 826 366	472 635	(7)
9. TRIESTE: International fair	595 238	210 000	14 878 062	(8)
10. BARCELONA: Alimentaria food fair	(Not held)	1 200 000	(Not held)	Held every two years
11. BARCELONA: International fair	11 000 000	(No participations)	12 911 220	(9)
12. ABIDJAN: SITHA (textiles & clothing fair)	(Not held)	14 550 000	(Not held)	Held every two years

Footnotes to table 2

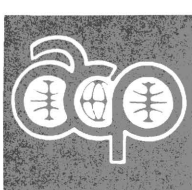
1. The increased demand in 1985 is due to Mali (6 000 t cotton fibre = ECU 9 384 182) and Mauritius (ready-to-wear clothing worth ECU 5 286 867).
2. Exceptional results by Côte d'Ivoire (2 632 467 cartons of preserved pineapple worth ECU 35 684 and 189 500 cartons of preserved tuna worth ECU 6 165 108), Kenya (coffee, fruit and vegetables worth ECU 10 618 589), Ghana (fresh and preserved fruit worth ECU 6 584 435) and Senegal (fish products and groundnut products worth ECU 7 523 028).
3. The increase in the 1985 figure is due to the demand for textiles from Senegal (worth ECU 4 million).
4. Heavy demand for food products (coffee, cocoa, fresh and preserved fruit and fish products) received by Cameroon (ECU 8 131 394), Côte d'Ivoire (ECU 12 075 625), Ethiopia (ECU 9 726 150), Madagascar (ECU 16 472 405), Benin (ECU 3 434 448) and Kenya (ECU 975 604).
5. Large increase in orders for skins (Sudan = ECU 7 355 100, Niger = ECU 4 336 314, Ethiopia = 3 857 026 and Mali = ECU 2 100 000).
6. The considerable result in 1985 is due to demand for supplies of 5 000 t coffee received by Côte d'Ivoire (ECU 22 908 000).
7. Appearance at Bari is geared to fish products.
8. The exceptional results in 1985 were achieved thanks to the appearance of a major Ghanaian company which received orders for ECU 14 752 744-worth of timber.
9. In 1984, the ACP countries only attended Alimentaria.

Leading participants with their products

Cameroon: coffee, cocoa, fruit
 Côte d'Ivoire: fresh and preserved pineapple, coffee, cocoa
 Ethiopia: coffee, hides and skins, spices
 Ghana: cocoa, timber, fruit
 Kenya: fresh and preserved pineapple, coffee, fish products
 Madagascar: vanilla and other spices
 Mali: hides and skins, cotton, mangoes
 Mauritius: ready-to-wear clothing, fish products
 Niger: hides and skins
 PNG: spices, cocoa
 Senegal: fish products, fruit and vegetables, hides and skins
 Zambia: cotton, fruit
 Zimbabwe: hides and skins, cotton
 Caribbean countries: tourism.



German President Richard von Weizsäcker visits the Mauritian stand at the Overseas Import Fair in Berlin in September 1985



Zimbabwe's Prime Minister Robert Mugabe called for comprehensive sanctions against South Africa...



... and so did Peter Mmusi, Botswana's Vice-President and SADCC Chairman

SADCC

Achievements and prospects

Signing of an EEC-SADCC memorandum of understanding

Nothing has illustrated more poignantly the raison d'être of SADCC⁽¹⁾ than South Africa's recent successful arm-twisting exercise with Lesotho: imposing a complete blockade on the small kingdom and, in no time, provoking shortages of basic commodities, a political crisis and, finally, the demise of Jonathan Leabua's government. This incident, if anything, gave added significance to the extraordinary vision of Sir Seretse Khama in suggesting the setting up in 1980 of SADCC, and a particular feeling of appropriateness to the organization's seventh annual consultative conference which took place in the Zimbabwean capital, Harare, on 30 and 31 January. SADCC's primary objective is greater self-reliance and a reduction of dependence on South Africa.

The Harare conference was convened to review the results of cooperation between SADCC and its donor partners since the 1980 Maputo conference and to examine the strategies being proposed for the next five years.

(1) The Southern Africa Development Coordination Conference.

Inevitably, South Africa was a major preoccupation against the background of the Lesotho affair, the continuing turmoil and murder of innocent citizens in the Republic, its illegal occupation of Namibia and attacks and threats of attack on neighbouring states. If the apartheid regime felt satisfied with its intimidatory tactics, the Harare conference put paid to that delusion, not just because the new military government in Lesotho, in an effort to dispel lingering doubts about its credibility since the coup, despatched a representative there to reaffirm Lesotho's opposition to apartheid and commitment to refugees from that system, but mainly that SADCC countries are more than ever vociferous in their call for international action against it. Zimbabwe's Prime Minister, Robert Mugabe, opening the conference, did not mince words in calling for comprehensive sanctions; neither did SADCC's Chairman, Peter Mmusi of Botswana. The latter told delegates that, in calling for sanctions, member states were aware of the tremendous hardship it would bring to their peoples, dependent as they are on South Africa, but they would accept it as a necessary sacrifice if peace and progress were ever to be achieved in the sub-region. He likened SADCC member states in this regard to "women in difficult labour". It reminds one, how-

ever, of John F. Kennedy's famous phrase, "We will bear any burden ... for liberty".

The cost of sabotage

SADCC has put the cost of South Africa's vandalism (sabotage of regional transport routes and other economic assets) from 1980 to 1984 at over US \$10 billion which, it says, "exceeds total assistance received by SADCC and is about one third of all member states' export earnings" during the period. The organization has often told donors that their efforts were being negated by South Africa. Now the figure speaks for itself.

Notwithstanding this and other factors, the world recession, external debt burden, deteriorating terms of trade and drought, for example, SADCC presented to the conference a rather cheerful report of achievements in the past five years. The report indicates that there is still a high degree of external dependence, especially on South Africa, but that "while, as a result of sabotage to intra-SADCC routes, this dependence is yet to be reduced in respect of land transport, dependence has been substantially reduced with respect to telecommunications and air transport". (It should be noted that transport and communications were top priorities at the first donors' conference in Maputo in 1980. In

SADCC's unique system of sectoral responsibility, Mozambique is responsible for this area of co-operation).

Food and agriculture

On food and agriculture, the report is less cheerful. Three years of drought have seriously affected production. Improved rainfall in some countries has left member states with varied fortunes: surplus food in Malawi and Zimbabwe and self-sufficiency harvests in Swaziland, Tanzania and Zambia while in Botswana, Angola and Mozambique, where drought and South African-sponsored banditry continue, production is still below requirements. SADCC has therefore called on the international community to provide food assistance to these countries. Zimbabwe, which is the coordinator of this sector, has meanwhile pledged greater emphasis on food and agriculture in the coming five years. In his address to the conference, Prime Minister Mugabe said that bold steps have been taken to initiate national and regional strategic food reserves. A study of the sector's qualified manpower requirements in research, extension, veterinary services and allied areas was almost complete; studies in improved seeds and the use of irrigation to complement dryland farming were also undertaken.

A number of projects in energy, industry and mining are at advanced

stages of implementation. Overall, says the SADCC 1980-85 report, of the 398 priority projects, over half are at various stages of completion, including some primary studies which could form the basis of possible operational projects. The estimated cost of the "projects is about \$4 800 million of which \$1 000 million have been secured and another \$1 159 million is under negotiation."

Strategies for the next five years

Looking ahead to the next five years (which corresponds to the period of Lomé III), the report says that sectoral strategies are being developed to provide guidance and direction, especially with regard to priorities and attainable goals. Such targets will almost certainly include land transport in the light of the Lesotho experience: the Beira and Dar-es-Salaam port systems, the Tanzam and Mozambique-Zimbabwe railways, the latter Zimbabwe's alternative lifeline to South Africa. Mr Mugabe hoped that necessary funding for this project will be secured before or after the Beira corridor conference scheduled for March.

The sectoral strategy approach of SADCC has received widespread support in Harare as it fits neatly into the practice of fund negotiations. SADCC conferences, it should be noted, are now much more businesslike. They

are less the fora for financial pledges these days. They are instead more for serious discussion of the general state of co-operation. Funds are negotiated sectorally providing the donor country or organization opportunities for dialogue and close examination of projects.

EEC-SADCC Memorandum

It is within this context that the signing, prior to the conference, of a memorandum of understanding between the European Community and SADCC over the use of resources amounting to some ECU 110 million (about US \$100 million) for regional cooperation under Lomé III must be seen. The agreement, which was signed by the EEC Development Director-General, Dieter Frisch, and SADCC's Executive Secretary, Simba Makoni, was the first of its kind within the framework of the ACP-EEC relations.

Vice-President and Development Commissioner Lorenzo Natali explained the objectives of the EEC to the conference (See box for extracts). He praised SADCC for both "the technical quality of its presentation of development projects and programmes and the candour and open-mindedness of its representatives towards fundamental policy discussions".

The newcomers

Hard on the heels of this EEC-SADCC agreement came another, between the organization and Nordic countries, covering joint ventures and transfer of technology, trade promotion and cultural co-operation. There is indeed no shortage of goodwill for SADCC. In Harare, the presence for the first time of a number of East European and African countries was duly noted by SADCC Chairman Peter Mmusi. Of particular note was that of Nigeria, which was represented by its Foreign Minister, Professor Bolaji Akinyemi who praised what he called the outstanding leadership of Prime Minister Mugabe. The Minister said that Nigeria, with its limited resources, remained committed to the assistance of sister African countries, and SADCC in particular, pointing



Prior to the conference, SADCC's Executive Secretary Simba Makoni (left) signed a memorandum of understanding on Lomé III regional funds for the SADCC region with Development Director-General Dieter Frisch (centre). Right, Giovanni Livi, Director for East and Southern Africa and the Indian Ocean

Extracts from the statement by Commission Vice-President, Lorenzo Natali, to the Harare SADCC Conference

"In the European Community, we particularly welcome the initiatives which SADCC is taking to strengthen its institutional and operating procedures, to establish a coordinated macroeconomic framework for the region, and to set out sectoral strategies for the next five years. Indeed, so far as the European Community is concerned, we have particularly appreciated their relevance to Lomé III programming consultations both at a regional and national level. In this regard I should mention that for the current Lomé Convention covering the next four to five years the Community has now completed consultations on seven national indicative programmes with SADCC Member States and intends to finalize similar programmes with Mozambique and Angola in the immediate future.

In total the indicative programmes for SADCC amount to ECU 776 m (some US\$ 700 million). In addition the Commission has just concluded a memorandum of understanding with SADCC over the use of resources for regional cooperation under Lomé III. This is the first occasion on which a regional agreement of this kind has been established under the ACP-EEC arrangements, and provides for resource-programming based on an amount of some ECU 110 m (US\$ 100 million) for Southern Africa over the next four to five years.

In the Commission's consultations with SADCC on Lomé III regional support, we are seeking together to identify programmes which address the most urgent problems of the region in the field of transport and communications, agriculture and food security and manpower development. We also believe that these areas are mutually supportive, when considered in relation to national priorities of SADCC Member States, and that they are mutually reinforcing in relation to each other. As SADCC has emphasized, the rehabilitation of priority transport systems

such as the Beira and Dar-es-Salaam port systems are closely related to the development of an effective agricultural programme, distribution and marketing structure for the region.

In our consultations, the Community has agreed with SADCC that under the Lomé III regional programme the two focal sectors for support from the Community should be transport and communications for up to 40% of the indicative allocation of ECU 110 m and food security and agriculture which should account for up to 30%.

In advancing rapidly with our programming consultations with SADCC and its Member States, the Commission has very much in mind the great importance which our Twelve EEC Members attach to the Community's contribution to development programmes in Southern Africa.

The meaning of our joint efforts for economic and social development is based on the concept of human dignity and human rights. Coming together as we do in this SADCC forum, our attention is time and again drawn to the fact that these human rights are not accorded to many millions of African fellow men and women living in South Africa and Namibia. Under Lomé III our European members together with African, Caribbean and Pacific partners adopted a joint declaration in which we stated our determination to work effectively for the elimination of apartheid which constitutes a violation of human rights and an affront to human dignity. What was and remains a moral imperative has now assumed its full legal status in the Community's relations with Africa. The Commission is now giving this declaration practical form in its proposals to assist non-violent anti-apartheid organizations in South Africa, for which, as the President of the Council of the European Communities already indicated before, specific provision has been made in the 1986 Community budget." ○

out the existence of the Nigerian Trust Fund within the African Development Bank, which is available for use. He hoped the West African regional grouping ECOWAS would cooperate with SADCC in all areas.

Those countries and organizations which, right from inception, believed in the organization's objectives and have steadfastly supported them financially and diplomatically did not, of course, miss the Harare rendezvous. All the Member States of the Community, including Spain and Portugal were there at high political levels. The achievements of the past five years are a source of great satisfaction and should be a reason to go on. SADCC has called for a redoubling of efforts.

US\$ 150 m additional funds

It is noteworthy, however, that by the end of the conference an additional US\$ 150 million had been pledged to SADCC in separate bilateral talks. The new pledges include: US\$ 4 million from the Nordic countries for transport and communications projects for the next three years; \$ 7 million from Sweden to Botswana to rehabilitate the railway system currently owned and managed by the National Railways of Zimbabwe; \$ 50 m from Italy for projects within the region, most likely the Beira—Dar-es-Salaam corridor and the Maputo—Swaziland railway line. All this financial support, it should be noted, is from Western nations—a much-welcomed support but which has led to some soul searching questions in an officially non-aligned organization. The Zimbabwe *Herald* encapsulated these in an editorial at the end of a conference at which the Eastern bloc was strongly represented. "What role", it asked, "is going to be played by the eastern bloc nations, our socialist allies and friends? Have they not been able to find a suitable role to play in all this? Or are they, for whatever reason, unable or unwilling to be involved?"

For a SADCC that requires currently US\$ 4.8 billion for project implementation these are questions to which answers will be required before next year's conference. ○

AUGUSTINE OYOWE

IGADD: Inaugural summit in an "oasis of peace"

The Horn of Africa has, for a long time, presented to the world a series of depressing preoccupations: diplomatic and military conflict, civil unrest and, most recently, the full brunt of famine, drought and desertification. These events might well have daunted national leaders, but, in a spirit of hope, they turned instead to a search for constructive solutions. The challenge brought forth its response, and on 4 February 1985 the first Ministerial Conference of IGADD—the Inter-Governmental Authority on Drought and Development—met in Djibouti, under the aegis of the Minister of Foreign Affairs of Djibouti. A small team analysed the nature and extent of the problems of drought and desertification and drew up a framework for a solution. And less than a year later, on 15 January 1986, the six Heads of State, from Djibouti, Ethiopia, Kenya, Sudan, Somalia and Uganda, the founding members, forgetting their differences, met at Djibouti, adopted a Plan of Action and officially gave birth to IGADD.

"A bold and exciting undertaking"

It was not merely by chance that the keynote speech on the first day, after Djibouti's President Aptidon's opening address, was delivered by President Abdou Diouf of Senegal; both in his capacity as Chairman of the OAU and as President of Senegal, Abdou Diouf was in a position to outline the significance of what IGADD represented. Senegal had been one of the founder members of CILSS—the Inter-State Committee for drought control in the Sahel—an organization from which the founders of IGADD drew much of their inspiration. President Diouf began by outlining the scale and scope of the African crisis—27 countries and 182 million people stricken by drought and the concomi-



A view of the "top table" in Djibouti. Common approaches to a common threat brought the six Heads of State together at the IGADD Summit

tant famine; the grave problem of indebtedness; the need to bolster African economies disoriented by drought along the lines of the Lagos Plan of 1980 which was confirmed by the OAU Summit of July 1985; and the pressing need for a long-term strategy to restore balance to societies, a strategy which must base itself on curbing demographic growth, conserving the soil, restoring plant fertility, developing alternative energy sources and managing water resources. President Diouf went on to launch an appeal to the international donor community for funds (estimated at over US\$ 500 million for 1986 and at about US\$ 3.1 bn up to 1988) and reminded his audience of the importance of the UN Conference on Africa in May 1986 which he asked governments to prepare for in a serious manner.

President Diouf's speech, and the points he underlined, were taken to heart and echoed by various Heads of State during the rest of the Summit. Djibouti's President Aptidon offered Djibouti—an "oasis of peace"—as the permanent site for IGADD and underlined the need for the divisions of history and of politics to be submerged in the common struggle. "Misery and

suffering", he said, "do not have party labels, and the rules of politics have no meaning for those who suffer". He went on to underline the long-term nature of what was being undertaken and the consequent need for the education and stimulation of citizens by all possible means. "Few of us will reap the harvest", he announced "but we will have the satisfaction of having laid the foundation of a bold and exciting undertaking". And all the Heads of State proceeded to do all that was necessary to turn IGADD from a project into a reality. They adopted the text of the Agreement setting up IGADD as an intergovernmental authority. They agreed the text of the internal rules of IGADD as well as its structure and the financing of the secretariat, the authority's executive body. In addition, they elected President Aptidon as President of IGADD for two years and Professor Kebret of Ethiopia as the authority's Executive Secretary.

Objectives of IGADD

The objectives of IGADD are as follows:

- to coordinate and complement the efforts undertaken by the Member

States to combat the effects of the drought and its consequent natural disasters, underpin their efforts to develop and assist them in tackling the problems of reestablishment and rehabilitation in the medium and long term;

- to bring to the attention of the international community the extremely serious consequences of the drought and the natural disasters stemming from it;

- to launch appeals to mobilize the necessary resources for carrying out medium to long-term emergency measures decided upon by the member states and for financing operations which are relevant to sub-regional cooperation;

- to identify projects which are of interest to the sub-region, submitted by Member States, and to aid them in obtaining the help necessary for preparing them and carrying them out;

- to help Member States draw up guiding principles and action programmes concerning drought and desertification and to ensure follow-up of activities relative to drought in the framework of the sub-region;

- to help Member States and existing institutions in the sub-region to obtain financing for their particular programmes.

Strategy and programmes

The need to fight drought and desertification led to a political decision to undertake a concerted effort and to put available resources under the coordinating authority of a single institution: it is a question of going beyond emergency measures and looking for solutions in the medium and long term. Member States are aware that the prime responsibility for implementing required measures and programmes lies in the first place with their respective governments. On the international scene they would thus sponsor collectively any resolutions seeking donor aid for implementing their strategy. In addition, the IGADD Secretariat would negotiate aid and technical assistance, in the name of IGADD, with third countries and international organizations.

The Action Plan stresses that drought and desertification are scourges which have struck at all the IGADD Member States, weakening their national economies and obliging them to divert a considerable proportion of their resources to emergency programmes for disaster zones and for the fight against desertification. It is clear therefore that these two phenomena must be attacked without delay

using existing information and technology; and this without compromising the continuation of research efforts to increase knowledge and improve the methods used in the struggle against drought and desertification, increase the food production capacity of the region, reach self-sufficiency in energy by encouraging tree planting and other forms of renewable energy sources and to correct the current imbalance between population and resources.

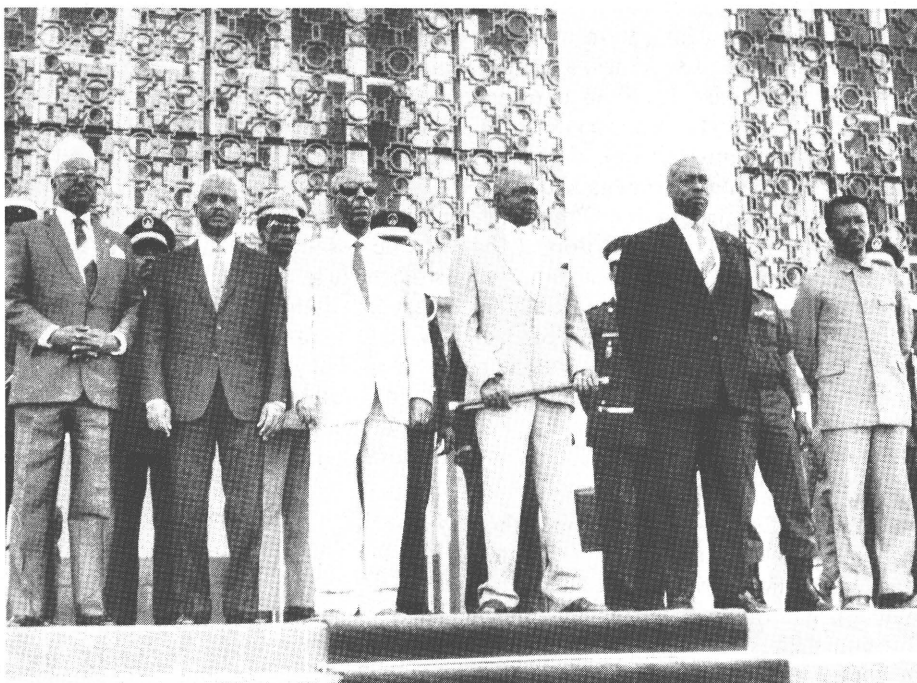
The projects and programmes of the strategy divide up into three broad categories, namely: emergency measures; short- to medium-term programmes; long-term programmes.

A large number of projects have already been submitted to the IGADD Secretariat, over 120 from the various Member States; in order to enable the Donor Conference arranged for September 1986, to submit them to an effective scrutiny, the following measures have been taken. Details of projects must be submitted to the Secretariat by 31 March 1986. Between April and 1 July 1986 Member States and the IGADD Secretariat will evaluate the profiles and specifications of the various projects on the basis of criteria of feasibility and pre-feasibility. These criteria are strict, and cover such matters as the likelihood of continuity of a project after exhaustion of external resources, its ecophysical impact, availability of local labour, details of the control and evaluation mechanism envisaged, and so on.

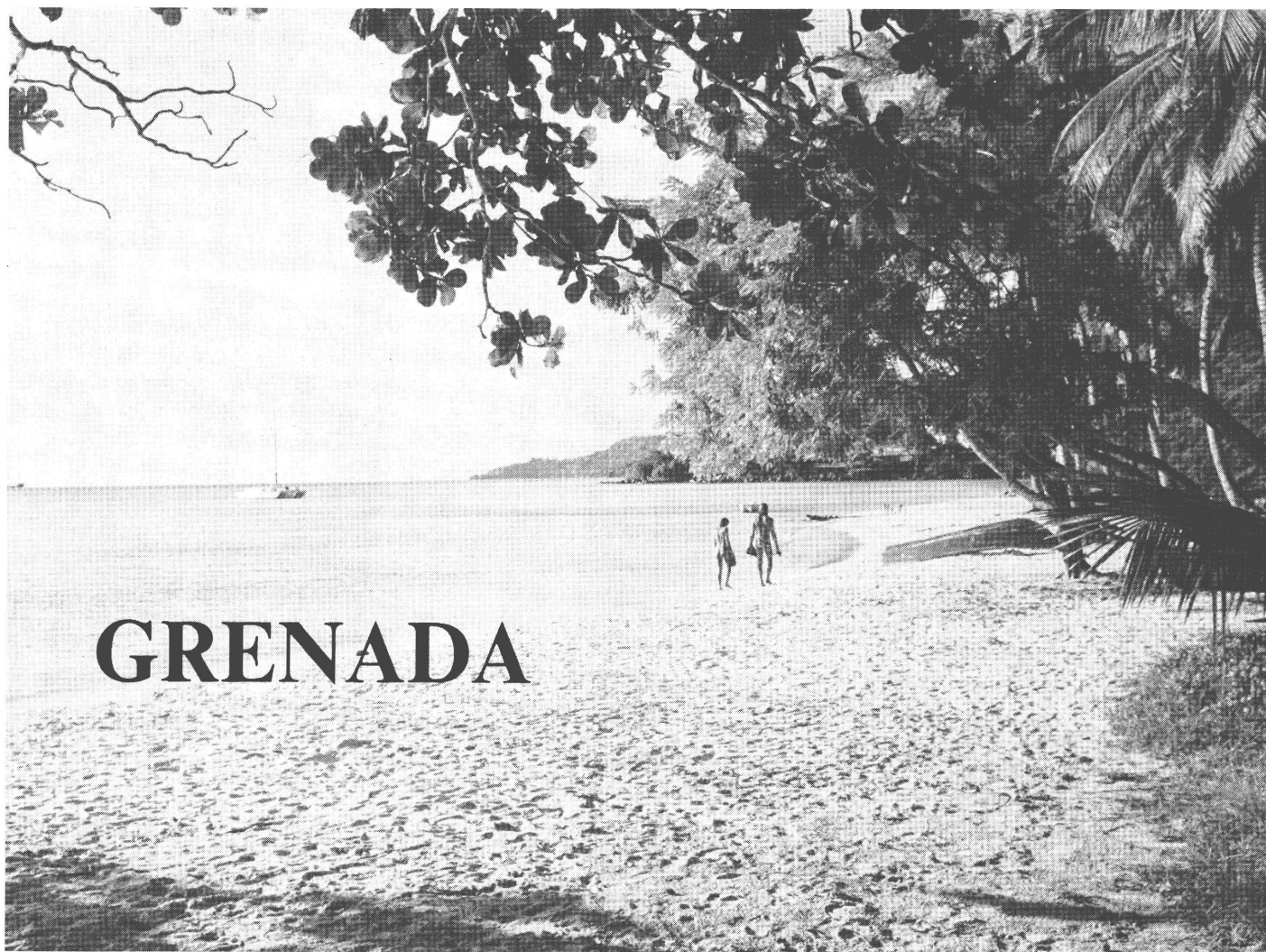
Representatives of the Commission were present at the inauguration of IGADD and were able to outline to the President of IGADD the possibilities for financial support which exist for the new institution within the framework of the Lomé III Convention. The Executive Secretary of IGADD, Makonnen Kebret, visited the Commission on 10-11 February in order to pursue this matter further.

It is a serious contribution to the solution of one of Africa's most serious situations. It was conceived in a spirit of collaboration and independence, prepared with care and administrative rigour, launched amid solid expressions of hope and goodwill and, as such, represents for the Horn of Africa the best guarantee of progress and stability. ○

Tom GLASER



Together for a better future. Summit heads, from left to right, President Aptidon of Djibouti, the host, General Swareddahab of Sudan, President Barre of Somalia, Uganda's then Head of State, General Tito Okello, President arap Moi of Kenya and Col. Mengistu Haile Mariam, Ethiopia's President



GRENADA

Honeymoon island on honeymoon

With its lush green hills and fast-flowing streams, its broad sandy bays and narrow tranquil inlets, Grenada is, by any standards, an island of dazzling natural beauty, the pride of those who live there and the envy of those who do not.

Yet, for all its beauty and tranquillity (or perhaps because of it) the country has had a remarkably violent history, and traces of past conflicts — whether between rival empires or rival classes — are to be found throughout the island today. At Le Morne des Sauteurs (Leaper's Hill) in St. Patrick's, the most northerly of Grenada's seven parishes, is to be found the cliff from which some 40 Caribs plunged to their death rather than surrender to French troops. In a church in the capital, St. George's, a monument commemorates the deaths in 1795 of 42 of the island's British community in a "horrid rebellion" instigated by "execrable banditti" (sic) "stimulated by the infidious arts of the French Republicans". And, sadly, not all the acts of violence go far back into Grenada's history. In the past decade alone the island has experienced the rigours not only of a coup, but of political

assassinations as well, not to mention a military intervention (albeit generally welcomed) led by the world's most powerful nation.

As might be expected, all this has left its mark on a country of fewer than 100 000 inhabitants. Politically, 12 years after independence, after two traumatic changes of government Grenada is now, in the Prime Minister's words (see interview p. 30) "back to square one". Economically, after a period of some disruption (particularly of course to the tourist industry), the island looks set to see her entire economic infrastructure overhauled in the decade to come. With considerable aid coming into the country, Grenada's short-term prospects look pretty bright. The Government's real challenge, (over and above the judicious management of those funds), may well be to pace the country's development in such a way that the economic activity now being generated can be sustained well into the 1990s and that the rising expectations of Grenadians can be fulfilled — and all this without damage to the fundamental nature of the island's way of life.

GRENADA

Richness in the soil

Grenada's richness has always been its fertile soil. Both the earliest known inhabitants, the peaceful Arawaks, and their more warlike successors, the Caribs, were able to maintain a highly nutritious diet of local produce from the land — root crops, beans, squashes, corn, papaya, guavas and a wide variety of other fruits and vegetables. In addition, there was the sea with its valuable sources of protein in the form of crabs, turtles, water fowl and fish of all kinds.

Other plants such as cotton and tobacco were also grown in limited quantities and it was the possibility of growing tobacco, a big money-spinner for colonial powers, that enticed would-be settlers to the islands in the early 17th century. The Caribs, thanks to their incredible fierceness, had managed to repel intending colonisers for many years, but in 1650 a party of French managed to settle on the island and the first tobacco crop was harvested in 1651, barely eight months after their arrival.

Tobacco and, later, sugar came to be the principal economic activities of the island, with the growing of cocoa, coffee and cotton expanding considerably in the first half of the 18th century. With this expansion came not only a huge growth in the island's population, (only 800 or so in 1700, the population had grown to 13 000 by 1750) but also a change in its nature, with thousands of slaves being imported by the French, and later British, colonisers to work the plantations.

Reliance on the "big four"

Grenada's richness now, two centuries later, still lies in her soil, though the patterns of cultivation have changed.

A wide variety of foodcrops continues to be grown for local consumption, but agricultural activity is overwhelmingly dominated by four major export crops — cocoa, nutmeg and mace (see separate article p. 34) and bananas. Coconuts, limes, lemons, coffee and cotton are also grown (the latter principally on Carriacou, where the land is less hilly than on the mainland).

Even so, further diversification is vital in the view of the Minister of

Agriculture, George Brizan^(*), if the sector is to be revitalized. All three major crop industries are, in fact, depressed at present. The price of nutmegs, for example, was the lowest in 1984 for more than a decade, and the sector has operated at a loss for the past three years. Among the products which the Minister believes to have a bright future are avocados, mangoes, paw paw, guavas, sour-sop and passion fruit. Until the various problems affecting these products (poor marketing, poor storage, poor packaging...) are solved, however, the prosperity of the sector (on which over half the population depends) will continue to rely heavily on the "big four".

Grenada has not escaped the rough and tumble of commodity market forces, but it has, at least, had the advantage of having four products on which to rely rather than a single product, as is the case with some of her less fortunate Caribbean neighbours. Nevertheless, the going has not always

(*) Mr Brizan's excellent book "Grenada: Island of Conflict" is to be much recommended to these interested in Grenada's history.

been easy. Not only have there been the vagaries of international trade to contend with, (including the effects of price and currency fluctuations), there has also been the weather.

With a climate the envy of at least three-quarters of the rest of the world, with plenty of sun and sufficient rain for the crops, Grenada nonetheless lies in the path of hurricanes.

On at least three occasions in recent history (Hurricane Janet in 1955, Flora in 1963 and Allen in 1980) damage to Grenada's major crops has been devastating and, in some cases it has taken years to bring production back up to pre-hurricane levels.

Bananas — ready markets but not enough fruit

Bananas, while vulnerable to high winds (40% of the 1980 crop was destroyed by Hurricane Allen) have the advantage of yielding a crop within a year of planting. It became a major crop (now the third most important) in the wake of "Janet", when the battered cocoa and nutmeg industries



Early morning fishing in Prickly Bay



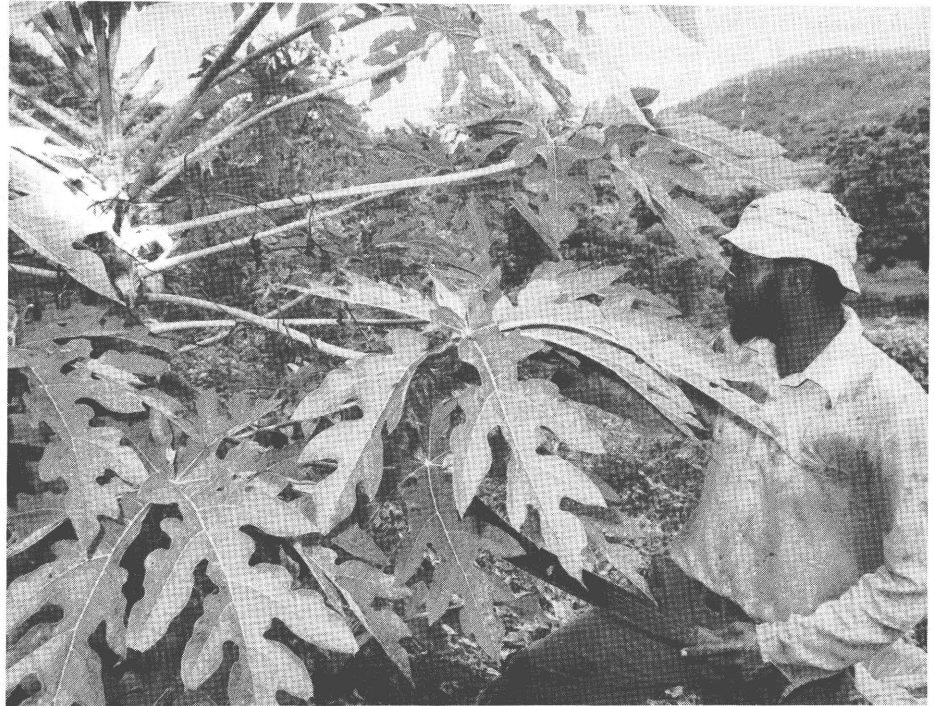
The Hon. George Brizan,
*Minister for Agriculture, Forestry,
Land, Fisheries and Tourism*

were only just beginning their slow recovery.

It was not the first time they had thrived: there had been boom years in the 1920s, but an epidemic of *panama*, the most serious of banana diseases, had virtually destroyed the crop, for export purposes, in the 1930s and 1940s. In the 1950s a new variety was developed which was resistant to *panama*, and, as of this time, Grenadian production really took off. Bananas are now almost always grown in mixed stands, used as a nurse crop, with cocoa and nutmeg trees, and, while this has its advantages, it has the disadvantage of making disease control both more laborious and more expensive. The eradication of *moko*, in particular (a virus infection which attacks the banana plant's leaves), is one of the industry's top priorities at present.

Grenada's bananas have other problems, too. Post-harvest handling is not as gentle as it should be, so that the reject rate is high. (Grenada's bananas are actually harvested when they are about three-quarters ripe, since St. George's is usually the banana boat's first port of call in the Windward Islands and the crop will have another 12 days or so to ripen on the boat before reaching Britain, to which some 80% of production goes). The large

FAO - Mattioli



Papaya (paw paw) cultivation. Diversification out of traditional crops is vital, and paw paw is one product with a bright future

numbers of over-mature plants at present means also that production levels have been far below full potential in the past 5-10 years. This is all the more frustrating since Geest contracted, back in the 1950s, to buy all that Grenada could produce. Moreover, Geest would have no difficulty in selling more since the country's annual export quota of 20 000 tons to the U.K. has not been met for the past 15 years.

The country now has between 1 200 and 1 400 banana growers. The majority of these are on holdings of under four acres, though a number of large

plantations still exist. Egbert Barrett, Operations Manager of the Grenada Banana Association is hopeful of the industry's future. "Bananas are becoming more lucrative", he affirmed, "and they also provide year-round income. Moreover, more young people are returning to farming — the banks prefer the young!"

Cocoa: overage trees and overage farmers!

One of the problems of Grenada's cocoa industry, on the other hand, is age — both of the trees and of the farmers! (The average age of Gren-

The Courier



The fortnightly call of the banana boat at St. George's

GRENADA

ada's farmers is said to be around 60). Cocoa's peak year was 1917, when some 14 million pounds were produced as compared with a current average annual production of only 5 million pounds. Until 1933 there were no controls over purchasing and marketing, with the result that producers were often badly exploited. (Moreover, the large estates, in particular, became a prime target of thieves, who were alleged to have transported stolen cocoa in coffins, presumably to terrify the curious).

Cocoa still ranks as the island's leading export crop, nevertheless, and has done for many years, usually accounting for some 30% of the value of agricultural exports. Many of the trees (some estimates put it as high as 50%) are between 30 and 50 years old, whereas optimum yields are obtained from 7-15 year-old trees. Moreover, overage trees are less resistant to pests and disease, although in the view of Mr L.A. Purcell, Chairman of the Grenada Cocoa Association (a slightly idiosyncratic view, it has to be said) disease was "a necessary evil — teaching growers to use and to maintain a labour force, and without which the industry would run itself".

In spite of this, Grenada's cocoa is of a very high quality, too good, in fact, for processing, because its fat content is too high, and more valuable for sale as a raw product where it commands a 5% premium over world prices.

Prices have been less volatile than for some other commodities, but what has affected revenues badly in past years has been the erratic movement in the sterling-dollar rate. While the EC\$ is tied to the US\$, most of Grenada's cocoa production (as with her other leading agricultural exports) is paid for in sterling, in the case of cocoa through the London Exchange, only a small proportion of sales being purchased directly by US manufacturers, in dollars.

High export taxes have also acted as a disincentive in the past, but the government has already moved to reduce the tax and there are plans to eliminate it totally in one to two years' time. A major replanting scheme, within the framework of a cocoa rehabilitation project, funded by the Canadian Development Agency, CIDA, and by the Grenada government, is



The Courier

Sand, sea, sailing and sun. "Grenada's tourist product is an undeniably attractive one"

now under way and there are hopes that cocoa production will be tripled within 20 years.

Very little actual physical damage was suffered in the agricultural sector during the intervention in October 1983. Indeed, the sector stands to benefit a good deal by the large inflows of aid which have come into the country in the aftermath of those events. The sector which has, however, been considerably disrupted, and continues to fire on one piston only, is that of tourism.

"Grenada has all that the discerning tourist could hope for"

Grenada has all that the discerning tourist, in search of a peaceful, sunny,

comfortable, non-razzamatazz holiday could hope for. Good accommodation can be found, with excellent food, at prices which — unlike some Caribbean destinations, alas — are far from outrageous. The island boasts over 40 white sand beaches, fine sailing and diving, and interesting scenery. The carnival in August may not be Rio or Port of Spain, but the steel bands and calypso groups are just as enthusiastic and just as much fun is had by all. Grenada's tourist product is an undeniably attractive one.

The intervention did do undoubted harm to the industry, though, including the actual loss of hotel accommodation. The biggest hotel, the Grenada Beach Hotel, formerly the Holiday Inn, on the famous and splendid Grand Anse beach, was used as living

quarters for the U.S. forces for several months, and although the bulk of the troops left the country in December 1983, the hotel, which is being extensively refurbished, is not yet in operation again.

More damaging still, though — in the short term at any rate — was the psychological impact made. Tourists tend not to like coups. Assassinations and military interventions they like even less. As a result, the number of stayover visitors dropped by 25% in 1983, and the number of cruise passengers (an important source of income to the traders in St. George's) fell to less than half their 1979 peak. While some 750 rooms were available to tourists in 1980, the figure had dropped to 400 or so by 1984.

Ministry of Information - Grenada

Happily, the tide is now turning. It may even prove to be the case that, in the long run, the effects of the intervention on the tourist trade will be beneficial. Isn't all publicity good publicity, after all? Whatever else Grenada's dramatic political upheavals may have done, they certainly put the island on the map. While the number of European tourists may have de-



The Hon. Keith Mitchell,
*Minister for Works, Communications, Public Utilities,
Civil Aviation and Energy*

clined (largely due to the strength of the dollar), that of American stayover visitors has increased steadily. So, too, has the number of visitors from elsewhere in the Caribbean — from Trinidad and Barbados in particular — who are increasingly favouring Grenada as

the venue of their summer holidays.

Expansion — a “chicken and egg situation”

The 1985/86 season looks set, at any rate, to begin well. Some 200 cruise ship calls are scheduled for the season, 9 of which to Carriacou. Moreover, a big boost is expected to be given to the industry by the new airport at Point Salines, a scheme initiated by the former government, under Maurice Bishop, and which (because of its drain on resources) was probably also a contributory factor to his downfall.

The old airport at Pearls had no night landing facilities and, with a runway of some 5 200 feet, could only cater for small aircraft. Moreover, situated as it was, 18 beautiful but bumpy miles from the capital, it could hardly have been more inconvenient.

The new airport, completed with U.S. and Canadian assistance, has international capability and is far more easily accessible, both from St. George's and from the main tourist areas in the south-west. Point Salines is now operational. Hopes are that air traffic will increase significantly and that 1986 will see direct flights to London, in addition to the Miami and New York flights already operating. The New York and Miami routes are serviced by both BWIA and the newly-created Grenada Airways.

The problem is that, until sufficient hotel accommodation is available, airlines will not normally be willing to schedule regular flights. And until the tourists are seen to be coming, hotels will not necessarily be willing to expand. It is, as the Tourist Board's Chairman, Dr John Watts, put it: “A chicken and egg situation”.

Construction work on four hotel projects had, nevertheless, been started in 1985, which would provide some 300 additional rooms, and the Ramada chain has leased the old Grenada Beach Hotel, which will put another 200 rooms on the market. The



The new international airport at Point Salines. Hopes are high that it will stimulate not only the tourist sector, but the economy as a whole



Small-scale farmers sending produce to Trinidad

government's target is to provide an additional 900 beds or so in the next two or three years and work on a further three hotels is to begin this year. As well as bringing in much-needed foreign exchange, expansion will, it is hoped, make a dent in the depressing unemployment figures, now estimated at 25% of the workforce.



The Hon. Ben Jones,
Minister of External and Legal Affairs

Like the Government, Dr Watts is fully conscious of the need to conserve the island's natural beauty. There will be no skyscrapers. No hotel will have more than 300 rooms, and the architecture must be in harmony with its surroundings. Vital as the sector is to

Grenada's development, "Grenada is not looking for mass tourism", Dr Watts affirmed, but for "quality tourism, catering for a variety of tastes and a variety of pockets". He is also aware, though, of the need to pace tourist development, so that it is in line with that of the country's social infrastructure—its road, electricity and communications networks, for example.

A total facelift for infrastructure

Infrastructure was certainly in need of attention, not merely for the good of the tourist industry, but as a prerequisite if foreign investors were to be persuaded to set up employment-generating operations on the island. The road system had been allowed to deteriorate through "bad political leadership", in the words of the Minister of Works, Dr. Keith Mitchell. It is planned that at least 70 miles of road-works (building or rebuilding) be carried out in 1986, principally with USAID grants or soft loans.

There were good prospects, too, the Minister felt, for overhauling the country's water supply system, with funds from the U.S., the French government and the Caribbean Development Bank likely to be forthcoming. As for electricity, the chief problem lay in the age of the generating plant, and in its insufficient capacity. Two new generators should come into operation in early 1986, although given

other improvements, the reliability of supply has already improved greatly on 1983 and early 1984, when cuts were all too frequent. Finally, the telephone system was due to be totally modernized and by the end of 1987 the country should have a fully digitalized system.

At the same time as the hardware of the various public utilities is being overhauled, efforts are being made to reorganize manpower to ensure efficient management of the sources available. The ministry itself has been reorganized and the utility services have had considerable success in attracting back to top management positions key Grenadians who had held positions of responsibility overseas.

And when the honeymoon is over?

Grenada, now, can be likened to a young bride on a wonderful spending spree. She is spending wisely, though, investing in her future. But the honeymoon can't last for ever, and when it ends, what then? The Government is conscious of the potential dangers. Ben Jones, Minister of External and Legal Affairs, acknowledges that the man in the street has been given a sense of physical and economic security in the past two years which may be difficult to sustain. He is not alone in recognizing the temporary nature of present assistance, and the need to reorganize the economy so that it becomes self-sufficient.

The investment that the government is trying to attract to the manufacturing sector in order to generate employment and promote growth in the economy will not necessarily come easily. While tax and duty concessions, together with Grenada's low-cost work force, will help to entice potential investors, and the recently-established Industrial Development Corporation will help to guide them, the island nonetheless faces formidable competition for such investment from other Caribbean contenders. Catering for the post-honeymoon era will be no mean task.

For the moment, however, this lovely country is enjoying a well-deserved peace and a modest prosperity. Grenada in 1986 is a honeymoon island on honeymoon itself. o

M.v.d.V.

Grenada at a glance

Area: 344 km² (Grenada, Carriacou and Petit Martinique)

Population: 93 000 (1983)

Rate of growth: -0.8 %

Capital: St. George's

Currency: East Caribbean dollar
EC \$ 1 = US \$.37 *

GNP/capita: US \$ 836 (1983)

Principal economic sectors:

— Agriculture (main export crops: cocoa, nutmeg-mace, banana). Other crops: sugar cane, coconuts, citrus fruits, cotton (on Carriacou)

— Tourism

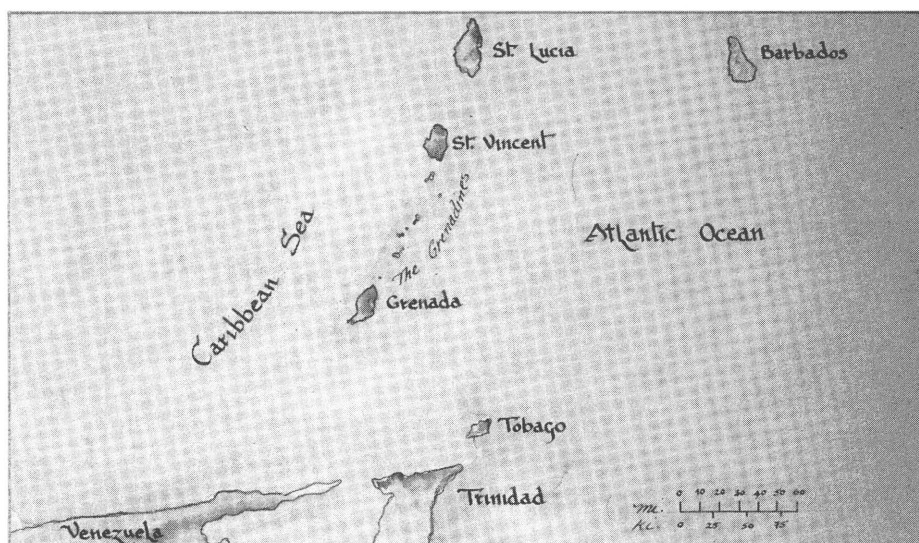
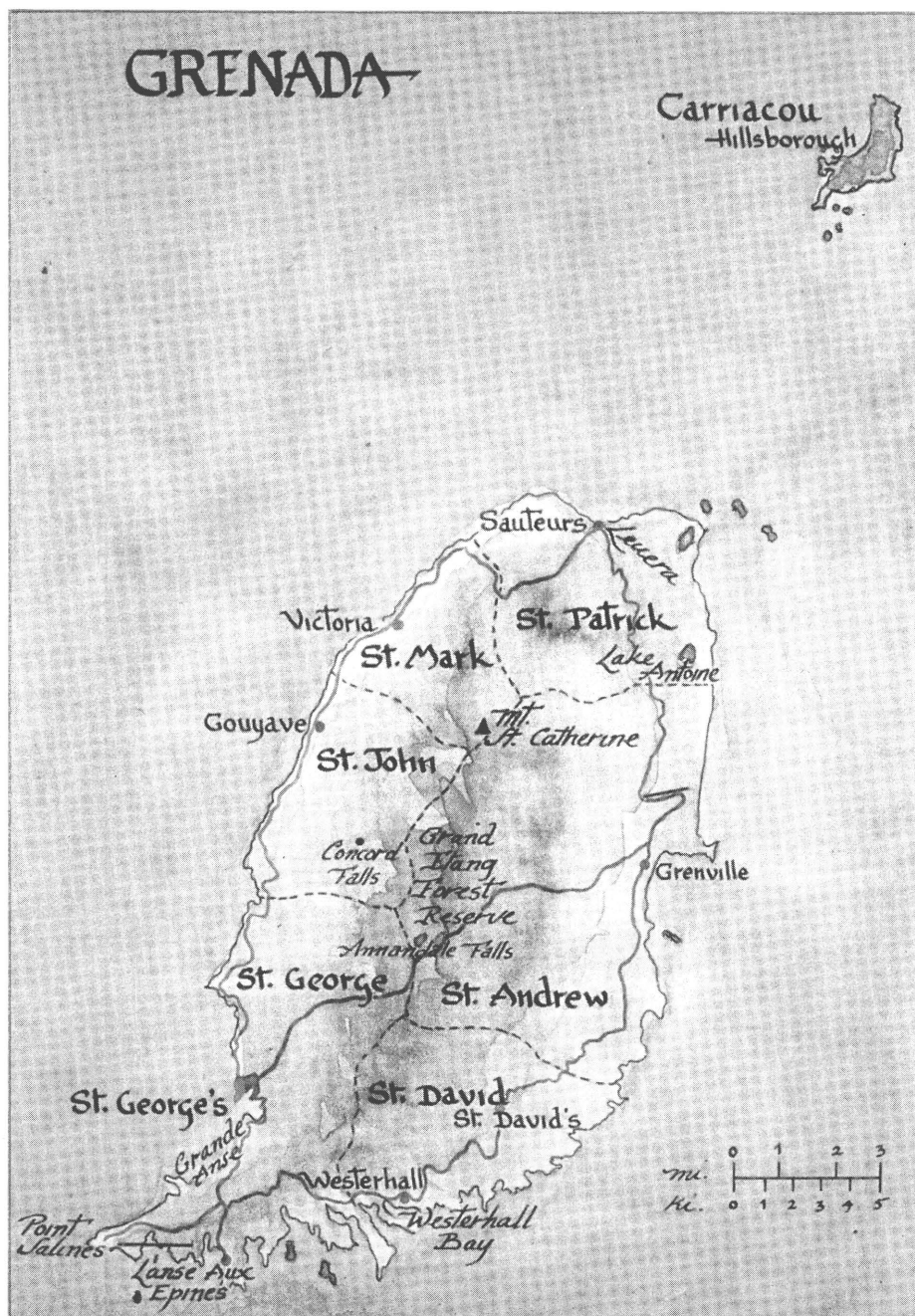
— Manufacturing (principally agro-processing).

Grenada comprises three islands — Grenada itself, the main island, together with Carriacou and Petit Martinique. The main island is the most southerly of the Windward group, with Carriacou and Petit Martinique lying a few miles to the north-west. It is mountainous, thickly wooded, contains many streams and is almost wholly volcanic. A number of crater basins exist in the centre of the country, as well as one larger crater lake, Grand Etang. The highest peak, Mount St. Catherine, is some 850 m above sea level. There are many beautiful creeks and beaches, particularly on the south and west coasts.

The country's present name is actually the sixth by which it has been known. The island's first settlers, the Caribs, called it Camerhogue. It was later baptised Concepcion by Christopher Columbus when he discovered it in the course of his third voyage of exploration in 1498. Shortly afterwards it was being referred to on maps as Mayo as well. Still later, other Spanish explorers dubbed the island Granada, as the lush green hills of the island reminded them of their own countryside back home. With the arrival of the French in the 17th century, Granada became La Grenade, and it was only in 1763, when the British conquered the French, that the island acquired its present name, Grenada.

Grenada became independent on 7 February 1974. ◊

(*) Exchange rate at 15.1.86.



“We can’t just rely on agriculture to recover the economy”

declares Prime Minister Herbert Blaize



Herbert Blaize, Grenada’s Prime Minister, is a politician of vast experience. A distinguished lawyer, and a native of Carriacou (which, together with Petit Martinique, he has represented in Parliament since 1957), he entered the political arena in the 1950s, first as an independent, then as an elected member of the newly-formed Grenada National Party. In 1962 he began a five-year term at the head of a GNP government.

Following independence in 1974, his party remained in opposition, initially under Sir Eric Gairy and subsequently under Maurice Bishop. In 1984, during the period of interim government following the bloody political upheaval of October 1983, when Maurice Bishop was murdered by a rival faction of his own party, three parties combined to form the New National Party which, in December 1984 fought general elections under his leadership, winning 14 out of a total of 15 parliamentary seats. In this interview with *The Courier*, Prime Minister Blaize speaks of his country’s relations with its neighbours, both within and beyond the Caribbean, and of the social and economic development objectives his government is pursuing.

► *Prime Minister, you can look back over a long career in Grenadian politics. What, in your view, has changed for the better in the past thirty years, and what for the worse?*

— Well, over the past thirty years we’ve had changes, both in the political and in the social situation in Grenada. Politically, we have moved from the colonial period to independence,

which is a very good thing in that people get a sense of feeling that they can look after their own affairs. But there were changes even then. After independence we had something else, which was a coup, which took away the right of people to elect their own representatives. That ended in disaster. And then we had an intervention, which was a good thing, so that we are now back to square one—independent,

but able look after our own affairs in a democratic way.

“A breakdown in discipline”

So those are good things. The changes that I have seen for the worse over the last thirty years affect the social more than the political situation in that there has been a breakdown in discipline—a tremendous difference between what I saw when first I came to this—discipline in the home, discipline in the office, discipline everywhere. And, with that, there’s also less response to the line of authority. And so we are in a situation where people want to do their own thing rather than be confined to regimen and discipline. We have that sort of thing to grapple with.

► *You mentioned having had an intervention within the past few years. You’ve also had a coup. There must be worry about the country’s vulnerability—whether to external or internal forces. Is anything being done to reinforce your sense of security?*

— Yes, indeed. There are people inside the country who are still committed to trying to do the wrong thing. By ourselves alone we cannot properly provide the security—we are only a small state—so we are encouraged by the fact that we have a regional security system, with all the Eastern Caribbean countries. So that we all have an input into providing the base for helping one another. In the case of any trouble we can call on them to help and they will respond, because we have a Memorandum of Understanding with regard to that. Each one of us has a team of people specially trained—the Security Service Corps, not an army, but a team specially trained and equipped so that they can respond quickly to any call for help. They have been very valuable inside the country because they help us to keep things in order and are highly respected by the general populace.

► *Your present closeness to the United States is said to be envied by some of your Caribbean neighbours. Would you say that, in general, Grenadians are happy to be able to shelter under the American umbrella?*

— We really see America as not only being a big brother but a rescuer, in that when we came out of the situ-

ation in October 1983, which came about because of a coup within a coup, the people were so badly traumatized that when they got relief, principally headed by Americans, they tended to feel "God Bless America". So that America has become not only our natural neighbour and friend and protector, but a source of a feeling of security among the people of Grenada. If the Americans are around, not necessarily in the army, if they know they are within reach should anything happen, they feel secure. Not that they feel that they are a new colony of America or that they are subjugated to American dominance, but they have the feeling that America has helped them and will continue to help them in the face of need, but leave them to carry on with their own affairs.

► *Caricom went through a difficult period after the events of October 1983. Do you feel that the tensions have passed? Is there sufficient political will within Caricom for there to be forward movement towards economic integration?*

— So far as I have seen — and I have been to Caricom meetings since I have been elected—there is no evidence of tension within the Caricom states with regard to the Grenada situation. What has happened to Caricom is more a reflection of the international economic and trading situation which makes it difficult for countries to have a proper balance of payments. And Caricom is no exception to this situation. And so what we are trying to do within Caricom is to regularize the trading patterns among ourselves so as to ease the stress that has been brought upon us. Caricom has the will to get over the problems, but it's just one of those parts of the world that has those problems...



Slogans on a wall outside the capital after the invasion of October 1983

► *What about the OECS? Has inter-regional trade been of much benefit to Grenada?*

— There has been very little inter-regional trade, because the OECS countries are all about the same. They're all exporting agricultural crops and there is hardly anything one has that the other doesn't have. So there is not much inter-regional trade among us. Nevertheless we have an understanding which we want to develop further, so that there will be less competition among ourselves but a greater cohesiveness in relation to extra-regional trade.

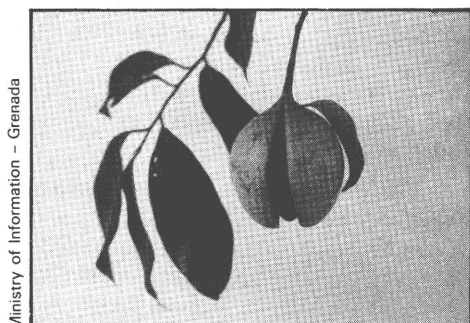
Lessening reliance on three crops

► *Agriculture is likely to give the major thrust to Grenada's economy in the near future. How do you plan to put new life into the sector?*

— In several directions. Agriculture has had a beating for the simple reason that we have been accustomed to having a certain number of primary products for export which have fallen on bad times. Prices have been bad

and even the acceptance of the goods has been somewhat slow. So agriculture needs a lot of help and we are providing it by means of diversification. We are going to try to lessen our reliance on only three export crops—cocoa, nutmegs and bananas—and try to see if we can help the farmers by providing incentives such as fertilizer grants, pilot projects and providing them with plants. We're also going to see if we could go into things like vegetables and fruit. We've already seen signs of recovery in that there's been an increase in the export of vegetables over the last year. We are going to try to develop this more and so spread the load from just three export crops on to a more widely distributed base.

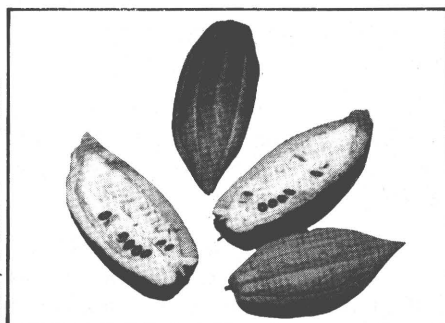
But we can't just rely on agriculture to recover the economy in the next year or two. So in the meanwhile we're going to develop our tourist industry. First of all we have to make sure that we have our infrastructure in place, so that we can get tourist hotels going. We are also going to do something about manufacturing. We've already invited several people to examine the possibilities, but we have to make sure



John and Penny Hubley



Ministry of Information - Grenada



Nutmegs, bananas and cocoa are Grenada's main export crops, but diversification is vital if the sector is to remain buoyant

GRENADA

that we can provide the energy and the water and the communications. So these things are being taken care of now.

► *What are you offering in the way of incentives to private investors?*

— We do have an incentive programme. People who want to invest to provide employment through manufacturing have some tax incentives. They also have duty-free concessions. We've set up an Industrial Development Corporation to make it easy for investors to find the kind of incentives that would apply...

► *What about social development within the country. What are your priorities there?*

— Well, within the country we think our most urgent and demanding programme has to be in health care. And we are trying to set up a system of primary health care on the basis that prevention is better than cure. And so we are seeking, and getting, assistance from various areas, from the World Health Organization and Project Hope and all kinds of people, to put together this programme of primary health care. We are also trying to reemphasize the cooperative spirit among people. We will be trying to institutionalize cooperatives to make sure that the small people who cannot do things by themselves can do things together with their neighbours and friends and so help to develop their social and economic strength.

► *... and education?*

— Well, of course, education is vital in that it helps people to understand what role they can play in developing their lives. And we do have a wide range of educational programmes—self-help programmes, adult education programmes, scholarships for going abroad for strengthening their expertise... and things of that kind.

► *There's another problem—linked to education—namely that of unemployment among the young. Are you experiencing a brain drain problem?*

— You call it a brain drain... I used also to call it brain drain when I was first in Government and I thought it was the proper term. But nowadays people have got so sophisticated that



Road building: good for employment, essential for tourism and agriculture and vital if investors are to be attracted to the island



they call it "reverse technology transfer"! But brain drain fits the situation quite well.

This is nothing new—we've always had this problem of not enough employment locally for the people we have trained and educated, and they tend to get bored and to seek employment elsewhere. We don't know that we can halt that, but what we have to do is to expand the areas for employment within the country so that more and more people will be able to stay at home and make a living.

► *Have some Grenadians returned to the country since 1983?*

— Some have come back, and are

already in place. And we've got indications that many would like to come back, but we've only got to see where they could be, and what they could do. It's a good sign, because if Grenadians themselves return to give us the benefit of their own experience from abroad, it would increase the sense of security and stability. We'd know they'd come back home for good—they'd not be here just for a short time.

► *U.S. aid obviously dominates external assistance, and the contribution of the European Development Fund is relatively small in comparison. Do you think, nevertheless, that a partnership with Europe has something special to offer the country?*

— As a matter of fact I wouldn't call the European assistance small, or even modest. Because anything that comes to you and comes in time is doubly valuable. We're grateful for the European assistance in that, very early in the game, they started to help us with the reconstruction of roads, for

instance. The road from St George's, through St. David's on to Grenville has been built primarily with European assistance, and with a proposal for it to continue on to St Patrick's and Sauteurs—that's about 30 miles or more of roads! And that is an important contribution because if we have

proper roads we can help to reach different parts of the community and people who come to invest will want to be able to move freely around the country. The European assistance is very valuable, and very much appreciated. ○

Interview by M.v.d.V.

Grenada: a short history

The first people to settle Grenada, anything up to two thousand years ago, were Arawaks, an Amerindian tribe which had originated in the Amazon basin and had gradually spread northwards through the South American continent up into the Caribbean islands. Rock carvings and pottery dating from the period of their settlement are still to be found in the country today. Peace-loving and sedentary as they were, they soon fell prey to the ferocious Caribs who followed them to the island some thousand or so years later.

Also of Amerindian origin, the Caribs, a warlike and seafaring tribe, killed most of the Arawak men and enslaved the women. Military prowess was greatly prized by them, and they proved such fierce fighters (painting their bodies in times of war to further terrify their assailants) that, despite attempts by both British and French to colonize the island, they succeeded in maintaining their grip until the mid-17th century.

European interest in Grenada was awakened in the 16th century, following the discovery of the island by Christopher Columbus during his third voyage of discovery in 1498. A number of attempts were made in the early 17th century to settle there—the first in 1609 by a group of Englishmen, the second in 1638 by Frenchmen. Both attempts were unsuccessful. In 1650, however, a French expedition, led by one Monsieur du Parquet, then Governor of Martinique, succeeded in landing on the island (apparently welcomed, initially, by the Caribs) and promptly began to prepare for hostilities. When the Caribs discovered that they had been duped, relations soured and, in 1652, outright battle broke out.

The French, armed with muskets and cannons overcame the Caribs (though not easily) and virtually exterminated them. In 1657 Grenada (which had proved a financial disaster for du Parquet) was sold to the Comte de Cerillac for 1 890 livres. Seven years later, the Count was forced to hand the island over to the French West India Company, and when, ten years later, the Company was itself dissolved, Grenada passed directly into the hands of the French crown.

So began a period of French imperial rule which was to last close to one hundred years. It was a period of great expansion in agricultural activity (tobacco and sugar cane being the major crops at first, followed by cocoa, coffee and cotton). It was also a time of enormous population growth, with thousands of slaves being imported to the island to work the plantations. Many of the island's towns and estates (Gouyave, Sauteurs, Sans Souci...) still bear French names dating from this period.

In 1763, as part of a European war settlement, Grenada was ceded by the French to the British and it remained in British hands—with the exception of a four-year period later in the 18th century—until independence in 1974.

Politically, the planter class dominated the island until 1877, when Crown Colony government was introduced. Though a major slave insurrection had taken place in 1795 (the so-called Fedon Rebellion, named after the Free Coloured Grenadian who led the revolt), it was not until 1834, with the abolition of slavery in the British Empire, that plantocracy rule began its slow decline. The planter class dominated the island

until 1877, when Crown Colony government was introduced. Demands for self-government began to be voiced in the 1930s.

With emancipation came a gradual growth in the peasant population, though accompanied by little in the way of significant improvements in peasant labourers' working or living conditions.

Peasant discontent, simmering for years, came to the surface in 1951 with the emergence of E.M. Gairy's Grenada Manual and Mental Workers' Union (GMMWU). In elections held later that year, following constitutional changes, Gairy's party, the Grenadian United Labour Party (GULP) won a resounding victory.

Thereafter, up to independence, leadership alternated between the GULP and the Grenada National Party, led by Herbert Blaize. After independence, at which time E.M. (now Sir Eric) Gairy was at the head of government, the Prime Minister's style of government, widely regarded as authoritarian and corrupt, became increasingly resented by large sections of the population, and in 1979 he was ousted in a coup led by the New Jewel Movement, a radical left-wing party which had been formed in 1973. In October 1983, Maurice Bishop, the NJM's leader, was deposed and shortly afterwards murdered at the behest of a rival faction of his own party, precipitating an invasion of the island by a mixed US-Caribbean force.

A period of interim government followed, and general elections were held in December 1984 in which a newly formed party, the New National Party, headed by Herbert Blaize, won 14 out of Parliament's 15 seats. ○

The nutmeg: a spice story



They call Grenada the “Spice Isle” and the “Spice Basket of the Caribbean”, and not without reason. Spices account for two of Grenada’s four major export products and, as such, rank as important sources of income and employment for a large proportion of the island’s population. Among the many varieties grown are cinnamon, turmeric, cloves, bay leaves, allspice and ginger. But the greatest of all Grenada’s spices, the one which has risen to the heights of becoming a national symbol, featuring even on the country’s flag, is the nutmeg.

Red-brown and shiny, encased in mace — another spice — and surrounded by a fruit the size of an apricot, the nutmeg was introduced to the West Indies from the East Indies in the early 19th century. It is said to have originated in the Banda Islands which, in the 18th century belonged to the Dutch, who reputedly jealously prevented the nutmeg from being carried in a living state to any other country. When the Dutch lost the islands in 1796, nutmeg plants were spread to the Caribbean, to Penang and to India. In the Caribbean it established itself as a major crop particularly in those countries, such as Grenada or St. Vincent, where tree

crops rather than sugar or cotton predominated. By the 1840s Grenada’s yearly production had reached 2 500 tons—a level that was to be maintained, relatively evenly, until the year 1955.

1955: disaster strikes

In that year disaster struck. Hurricane “Janet” swept through the plantations destroying not only that year’s crop but 80% of the country’s production capability. For the next seven or eight years yields were down to 450 tons annually, and it was only in the late 1970s, more than 20 years after “Janet” that yields from new trees

brought production back up to its pre-hurricane level.

Grenada is now one of the world’s top three producers. Nutmegs are planted on some 6 500 acres, and all the products are exported. There are very few purestand fields, the trees being almost always interplanted with banana or cocoa trees to provide shade for the younger plants. Nutmeg trees grow to an average height of 25 feet (though old trees may grow to as much as 50 feet) and can bear fruit, without diminishing their yield, for a hundred years or more. The crop is harvested all year round. When ripe, the fruit splits open—revealing the nutmeg still wrapped in its ‘net’ of mace—and falls to the ground. Ideally the fallen fruit should be harvested every day, since the mace, in particular, deteriorates quickly, especially in the wet season when it can be affected by mildew. Daily harvesting is rarely possible, however, because it is simply not viable, and nowadays the nutmegs are more likely to be collected from the fields weekly or even fortnightly.

In Grenada the product is marketed solely through the Nutmeg Growers’ Association, which was formed in 1947 with the aim of regulating the market and cutting out the private export agents who reduced growers’ profit margins. The country now has some 7 000 registered growers, about half of whom are smallholders with less than one acre under cultivation. A further 40% of holdings are of between 1-5 acres, the remainder, a small proportion of the total, being plantations of anything up to 1 000 acres.

Local processing

After harvesting, the crop is taken to one of the Association’s 19 receiving depots, where the farmer is given an advance price per pound, the balance of which is paid at the end of the year by way of a “nutmeg bonus”. From there the produce is taken to one of three processing centres for shelling, grading and preparation for shipment. No grinding is done locally, partly because food manufacturers frequently prefer to grind their own spices (many, like nutmeg, lose their flavour rapidly once ground) and partly because servicing the industry could be a problem in a small country like Grenada.

Once at the processing centre, the first task (if it has not already been done at harvesting) is to remove the mace from the nutmeg while it is still soft and pliable. Its bright magenta colour at harvesting will change in the space of 3 or 4 months to a yellowish-beige. The nutmegs, faintly ridged by the mace casing, are then spread out in vast trays for 6 to 8 weeks to be dried, during which time great care must be taken to prevent insect damage, to which the spice is highly vulnerable. (In the past century it was common practice to give nutmegs a coating of lime before shipping them, to protect them from the ravages of beetles).

After drying, the nutmegs are floated in large tanks to separate the sound kernels from the defective ones. The latter (which float) can be used to make nutmeg oil for sale in Europe or elsewhere. (U.S. regulations do not permit the consumption of nutmeg oil made from imperfect kernels). The shells of the sound nutmegs are then broken (the only mechanical process in the entire production cycle), the kernels are graded according to number of seeds per pound and loaded into sacks for shipment, usually by banana boat, to the various export destinations.

Nowadays some 60% of Grenada's production goes to West and East European markets. Some goes to Canada, some to the Middle East. South America would be a worthwhile market, but for the lack of shipping—a problem not experienced by Indonesia, the leading nutmeg producer, which ships via Singapore.

Hurricane Janet, in addition to the lasting physical damage it did, was also responsible for losing Grenada the valuable U.S. market. Before the hurricane, the U.S. accounted for 60% of Grenada's exports. Now it accounts for a mere 8%.

Despite the mixed fortunes of the industry in past years, (Stabex transfers have helped to cushion recent losses) the little nutmeg is still big business in Grenada. It does, after all, provide employment and income, either totally or partially, for nearly a quarter of the country's population—for the 7 000 producers and their families and for the 450 or so workers involved in processing and administration. Nutmeg, in Grenada, is a spice story with a happy ending. ○

M.v.d.V.

The Courier



Above, nutmeg tree bearing fruit. When fully ripe, the fruit splits, revealing the nutmeg, encased in a net of mace. Below, on arrival at one of Grenada's three processing centres, the mace is removed while it is still soft and pliable. Right, the nutmegs are floated in large tanks to separate the sound kernels from the defective ones.

The Courier



Grenada Tourist Board

EEC-Grenada cooperation

By Bob VISSER (*)

A brief look at the trade picture of Grenada should suffice to highlight the importance of the country's relations with Europe. Most of Grenada's export earnings derive from sales of nutmeg, cocoa and bananas to the European market. Since the beginning of the Lomé I Convention, this trend has in fact been strengthened by the provisions which come under that Convention and its respective successors. On the one hand, the banana industry is being given protection by means of the Banana Protocol, while on the other hand, adverse fluctuations in the proceeds of cocoa and nutmeg/mace are being cushioned by the Stabex facility. In 1984, overall export figures for the main crops amounted to EC \$27 million. Sales to Europe accounted for EC \$23 million. Apart from the impact of the implementation of the indicative programmes and the contribution from non-programmable resources on the economy of Grenada, the shape of the traditional trade links with the European Member States, and with Great Britain in particular, underlines the need for continued cooperation between Grenada and the EEC.

Cooperation under Lomé I and II

Deprived of mineral resources, Grenada's economy is essentially based on agriculture and tourism. Indeed, agriculture provides jobs for well over half the total labour force. Production, however, is oriented towards export crops and there is a growing concern over a situation where almost 30% of imports consist of cereals, beef and dairy products. Diversification of agricultural production with a view to becoming self-sufficient in food has therefore been identified as one of the priorities of government policy. Tourism

is expected to receive a substantial boost, since Grenada now has an international airport capable of taking long-distance jet traffic.

The awareness of the dominant role to be played by the agricultural sector has been reflected in the indicative programmes of all three Lomé Conventions in that the opening up of areas with poor access has been a priority. Although community centres, schools, health and port facilities have been and are still being constructed from EDF resources, it is the rehabilitation of the main roads (and particularly the Eastern Main Road), linking the rural areas to the port of St.

George's, which takes up the bulk of the programmable envelopes. It is interesting to observe that this policy towards EEC development cooperation was maintained throughout Lomé I and II, despite the diverging political views held by successive governments. Total EEC contribution over the last decade — EIB included, regional cooperation not included — amounts to ECU 19 million, out of which ECU 8 million was earmarked for the reconstruction of the rural main road network. The overall figure may increase, subject to the EIB's total input under Lomé III. With the exception of the risk capital loans from the EIB, all EEC funds so far allocated to Grenada have been grants.

Lomé III

In July 1985 a programming mission from the Community visited Grenada in order to establish, together with the Government, their cooperation programme for Lomé III.

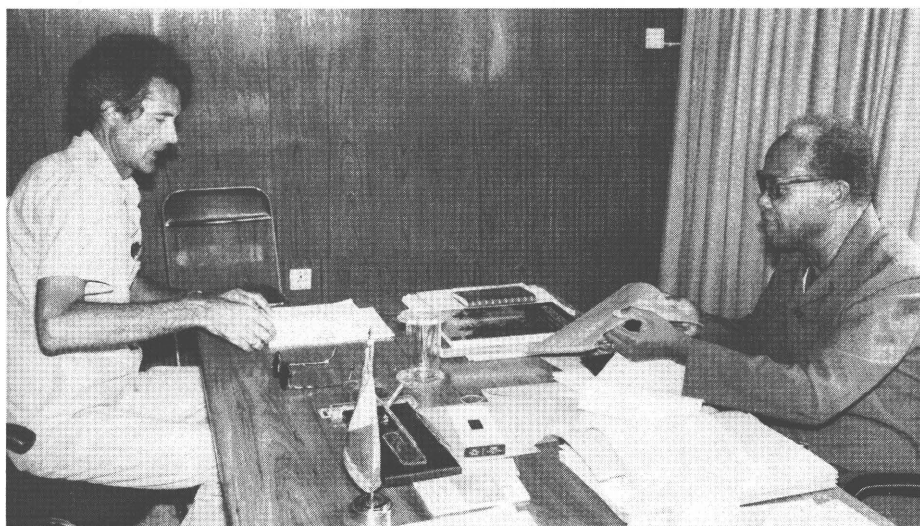
A sum of ECU 4.5 m will be made available in the form of grants, to be used primarily for providing easier access to the area between Sauteurs and Grenville, notably by the extension of the Eastern Main Road. Various other schemes are foreseen in the productive sectors, in particular in small-scale enterprises.

In addition, a minimum of ECU 0.5 m will be provided by the EIB in the form of risk capital for financing projects in the fields of agriculture, tourism, manufacturing and energy.

Regional cooperation

Finally, Grenada, a member of the Organization of East Caribbean States (OECS) and the Caribbean Community (CARICOM) stands to benefit considerably from the EEC's regional programmes for the Caribbean. Under these programmes, the Community made available ECU 26 m under EDF IV and 62 m under EDF V, in support of economic development and regional integration (see Table II). A total of ECU 72 m is foreseen for regional programmes in the Caribbean under Lomé III. o

B.V.



Bob Visser (left), the EEC's Resident Adviser in Grenada, discussing the Lomé III indicative programme with Prime Minister Blaize

Government of Grenada

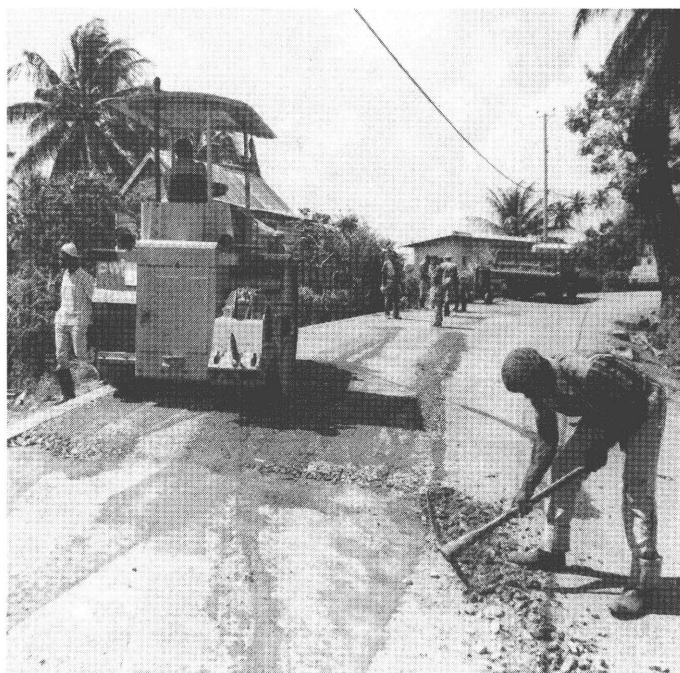
(*) Resident Adviser, Delegation of the CEC, Grenada.

Table I: EEC - Grenada cooperation

	ECU	Total ECU
Lomé I		
Training Programme	80 000	
Extension of General Hospital	206 000	
Microprojects	243 000	
Eastern Main Road (Phase I)	1 432 500	
Studies	38 500	
	2 000 000	2 000 000
Emergency Aid		
Cyclone Allen (1980)	450 000	450 000
Food Aid	620 000	620 000
Lomé II		
Training Programme	150 000	
Trade Promotion	10 000	
Technical Assistance	155 000	
Hillsborough Jetty	409 000	
National Library	290 000	
Mirabeau Agri. School	230 000	
Eastern Main Road (Phase II)	1 500 000	
Institute for Further Education	450 000	
Tourism promotion	110 000	
Study Electricity Tariffs	31 000	
Reserve	164 000	
	3 500 000	3 500 000
Stabex		
Nutmeg/Cocoa beans	3 606 000	3 606 000
EIB		
Grenada Electricity Services (risk cap.)	2 400 000	2 400 000
Food Aid	1 000 000	1 000 000
NGOs	537 000	537 000
Lomé III		
Indicative programme	4 500 000	4 500 000
Minimum allocation (risk capital - EIB)	500 000	500 000
Total		19 113 000

Table II: Regional cooperation

Regional EEC-financed projects from which Grenada derives particular benefits. (EDF IV and V Regional Programmes for the Caribbean total ECU 88 million)	
	ECU' 000
- University of the West Indies (UWI)	14 000
- Caribbean Tourism Research and Development Centre and Caribbean Tourism Association	9 200
- West Indies Shipping Corporation (WISCO)	6 300
- Leeward Islands Air Transport (LIAT)	5 750
- Regional Trade Promotion	2 425
- OECS Common Services	1 200
- Training in Environmental and Allied Health	1 115
- Moko Disease Control	495



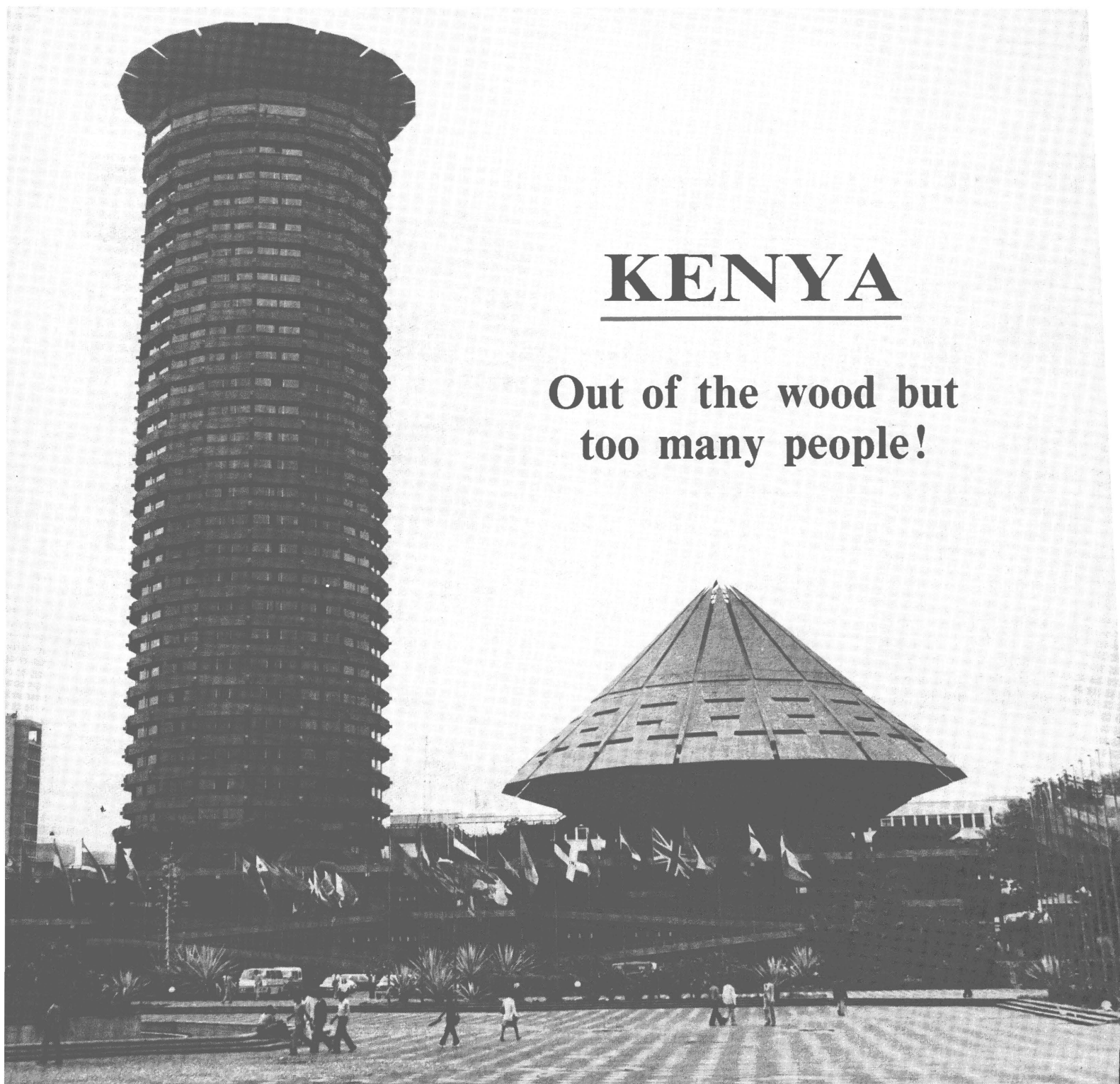
Surfacing a section of the EDF-financed Eastern Main Road



Building work under way at the Mirabeau Agricultural Training School

KENYA

Out of the wood but
too many people!



Africa pix

There is a feeling of relief these days in Nairobi over the course of the economy. With the 1985 harvest as good as forecasted, wiping out the effects of the drought on the agricultural sector in 1984, manufacturing output up and tourism set to break the all-time record in the number of visitors when the sums for 1985 are done, Kenya's economic recovery is well and truly underway. Barring any major catastrophe of the magnitude of, or worse than, the 1984 drought, the

economy will grow steadier in the second half of this decade than it has in the first. This is because the authorities appear to have learned all the lessons there are in the management of a predominantly agricultural economy and are beginning, it seems, to learn those associated with unbridled capital-intensive projects financed with so-called concessionary loans, of the types which have brought many African economies to their knees.

These past five years have been ones of considerable experience for Kenya: firstly, in 1980/81 when Kenya for the first time faced food shortages so acute that the authorities had to scurry round the United States buying grain to avert famine. The shortages were the direct consequence of poor planning. When farmers produced surplus food, the National Cereals and Produce Board, inadequately equipped, was unable to deal with it and, as such, grain was left to rot in the fields. And to add insult to the farmers' disappointment, this episode was closely followed by a shortage of fertilizers and the discontinuation by the government of its policy of Guaranteed Minimum Returns which had made Kenyan farmers the most envied on the African continent. The reaction of the farmers was natural. They cut down drastically on production, planting less acreage in two successive seasons and thus provoking the 1980/81 food shortages.

The government learned its lessons well. Not only were large quantities of fertilizers imported and prices paid to farmers increased, the National Cereals and Produce Board increased its storage capacity, and farmers, naturally, responded with increased production. But just as economic revival be-

gan late in 1983, it was abruptly halted in early 1984 by a drought so severe that it was feared Kenya would, for the first time in its 22 years of independence, record an overall negative growth. Happily things turned out better: famine was averted with foreign help and the purchase of food from abroad (the Kenyan authorities have indeed been commended by donors for the efficient manner in which they handled the situation); surprisingly GDP growth rate in real terms was not negative but 0.9%, thanks mainly to coffee and tea which were less affected by the drought and which provided the country with the much-needed foreign exchange.

The second lesson relates to foreign debt-servicing. This now stands at around 30% of revenue—a situation that has placed severe constraints on the budget in recent years, especially with development expenditure which has gone down from 13% five years ago to 8% today. The debts were contracted in the 1970s when donors were literally falling over each other to give loans on “concessionary terms” to a much-loved country to finance capital-intensive projects. Now estimated to be around \$3 billion, the loans are falling due (\$100 million to the IMF alone next year) and Kenya is having

to tighten its belt further. Development expenditure in the next three years, according to informed sources, will not exceed Kf 1.2 billion. Apparently, the authorities have decided to be more circumspect in accepting loans in the future. They will be going in for low-cost projects instead (See interview with the Minister of National Planning and Development Dr Robert Ouko).

The cash crop versus food crops debate

If there is an area where there is a debate as to the best policy, it is on the question of cash crops and foodcrops. The drought and the expenditure of scarce foreign exchange on food imports in recent years have reopened the debate on the government's emphasis on cash crops and its policy of self-sufficiency in food, for this is the country that is said to have the highest population growth rate in the world, around 4% per annum. As can be seen in the interview with the Minister of Agriculture and Livestock, Odongo Omamo “there is a good balance between cash crops and food crops”.

Kenya has shown that foreign exchange earned from coffee and tea can be used to import food to make up for



Coffee (left) and tea (right) are the two main cash crops, accounting for nearly 70% of Kenya's foreign exchange earnings, but nearly all the arable lands are devoted to their cultivation

KENYA

eventual deficits. This strategy is often supported with the argument that export crops are more labour-intensive than food crops and as such provide the best job opportunity for a growing population, given the very small size of the manufacturing sector and its slow rate of expansion. This argument, however, falls flat when the 4% population growth rate and national security (ie, the danger of depending on the outside world for food) are taken into consideration. The solution, in the opinion of many, lies mid-way: raising both food and export crops simultaneously, but this is severely handicapped by the scarcity of land. Almost all the fertile lands in the country (i.e. the central highlands, the slopes of Mount Kenya and the Aberdare Mountains, the western side of the Great Rift Valley and areas around Limuru and north of Nairobi) have been given over to coffee and tea. Increased food production can only be achieved by bringing more lands under cultivation in the semi-arid and arid regions which cover 75% of the country. This will involve massive investments in irrigation. The Kenyan authorities have been talking about doing this for years.

Although Kenyan farmers prefer coffee and tea cultivation because of the high income these crops yield, they are generally amenable to change. Indeed Kenyan farmers are believed to be the most amenable in Africa. They have shown over the years that they can grow anything, given the incentives, and this is a plus factor for the government whichever way it chooses to direct Kenya's agriculture.

This emphasis on population, cash crops and food crops can not be underestimated because these are factors that will weigh heavily in Kenya's economic development in the coming years. Already the growth of GDP per capita is more or less negative and unemployment is placing severe strains on the economy as a whole, and that is why there are now a number of question marks on Kenya's economic progress with admirers and detractors alike having well founded reasons to justify their attitude.

It depends really on your criteria of judgement. If, to you, progress is measured in good economic indicators such as Gross Domestic Product, exports and foreign exchange earnings



Vivian Univers

Food production on a Kikuyu farm

With so many mouths to feed, more lands will somehow have to be brought under cultivation

and reserves then Kenya is your cup of tea. If, on the contrary, it is measured in GDP per capita, job creation and social well-being, then you will swallow the story of Kenya's good economic performance with a pinch of

salt. All in all, compared with what obtains in many parts of Africa you will end up doffing your hat to the authorities, for Kenya is still widely regarded as a model for Africa and, indeed, the Third World as a whole.



Vivian Univers

Signs of firms on an industrial estate near Nairobi

Manufacturing output grew by 3% in 1984. Not much for a country with an increasing urban population and ever-greater numbers of job-seekers

The years of crisis

Kenya owes much of this reputation, no doubt, to the pre-independence era when its export-oriented agriculture was founded, the era of large-scale commercial farming by European and Asian settlers. The authorities' real masterstroke was achieving a reform in which lands were progressively transferred to Africans without disruption to the foundations that had been laid. Propped up by manufacturing, which had grown up in the drive for import substitutes and in efforts to meet the needs of neighbouring states of Uganda and Tanzania, the first 15 years of independence was a period of

scarce, posing serious threats to manufacturing, while inflation rose to 22.3%.

The Kenyan authorities would not resist the temptation of approaching the International Monetary Fund. They obtained loans but not before applying those classic structural change requirements such as the devaluation of the Kenyan shilling, reduction of public expenditure and liberalization of imports. The extent to which these measures aided recovery is debatable but one thing is certain: in applying the measures, Kenya enhanced the confidence it enjoys not only with the IMF but also with other

A more cheerful sectoral picture

The sectoral picture was not in the least as gloomy as the whole economy appeared in the early 1980s. For coffee and tea, the external market situation regulated earnings. Kenya has an annual ICO (International Coffee Organization) coffee quota of 1.3 million bags (lately adjusted to 1.35 m). It has always produced more than this: 1.54 million bags in 1982/83 and 1.5 million in 1983/84. But it has always found buyers elsewhere for its surpluses, most of which are of lesser quality, especially in the open markets of the Middle East. Coffee revenue rose from K£ 108 million in 1980 to K£ 203 m in 1984 while tea revenue rose from K£ 50 in 1980 to K£ 190 m in 1984, a windfall earning which was attributed to the decision by India to reduce exports. Delay in payments to farmers and the practice by farmers of inter-cropping coffee with other basic foodstuffs such as beans and potatoes, as well as the changing pattern of rainfall, were factors which threatened not only the production of coffee but also in its quality. Kenya depends on the high quality of its coffee to beat off the challenge from major producers like Brazil, Ivory Coast and Colombia. Kenya's tea, it should be noted, is also said to be the sweetest in the world.

With coffee and tea production for 1985 good as a result of early rains (by mid-year, coffee production had risen by 31%), these two main export crops have begun the second half of this decade on very good notes, although India's lifting of the ban on tea exports last year is almost certain to reduce earnings from tea this year for Kenya. The decision by the ICO this January to lift, temporarily, coffee quotas as a result of the very poor harvest in Brazil could be an advantage or a disadvantage for Kenya. Only time will tell.

Income from tourism has increased steadily over the past five years: from K£ 90 m in 1981 to K£ 122 m in '83 and K£ 154 in '84. The latest information indicates an increase in the number of visitors and earnings are sure to rise.

Manufacturing was sluggish

Manufacturing was, however, sluggish during the period in question, the only sector which showed visible tell-



The port of Mombasa

progress with annual growth in GDP and in manufacturing running at 6% and over 10% respectively. These growth rates would have been much higher but for the limitations of the 1970s: high oil prices, world recession, the collapse of the East African Community, environmental degradation and deterioration of terms of trade, particularly after the 1977 boom in coffee and tea prices. The early 1980s were really dismal as the cumulative effects of the crises, coupled with a severe drought and a strong population pressure threatened to make Kenya's economic miracle a thing of the past, a fluke: GDP growth rate declined to 3.3% in 1983 and plummeted to the very low but welcome figure of 0.9% in 1984 (a negative growth having been expected, as already mentioned). Foreign exchange became

financial institutions and bilateral donors, as evidenced by the mini-donors conference organized by Kenya in March 1985 which was well-attended. Kenya at that conference requested donors to finance to the tune of 100% most of the projects they are already engaged upon in the country. The demand, understandably, was received sympathetically, according to Dr Robert Ouko, the Minister of planning and Development.

It is nice for the country to know that it enjoys that confidence (Kenya's annual aid flow averages \$ 400 million, one of the highest in Africa). As already indicated, the government is now much more cautious on loans. The problem is getting Kenya's debts rescheduled on better terms and cutting down on the debt-servicing ratio.

KENYA

tale signs of Kenya's economic crisis. Lack of foreign exchange, difficulties in the procurement of raw materials and spare parts and export problems meant that industrial growth, which in 1979 reached 12.7%, was down to 2.2% by 1982. The overall slow growth was due entirely to low and sometimes negative growths in food processing, leather, wood, mineral and transport because impressive growths were registered in the textile industry, clay and glass products, refined petroleum and other chemicals. In 1983 and '84 industrial growth recovered at 4.5% and 4.3% respectively. That recovery seems to have been consolidated, for in the first six months of 1985 manufacturing output ran at 3.8% more than at the same period in 1984.

Food imports in the face of drought and famine, the unstable prices of coffee and tea and the sluggishness of the manufacturing sector have translated, over the past five years, into deficits in visible trade. Although the trend has been towards a reduction in deficits, the 1985 trade figures are expected to show a rise, as imports rose faster than exports by 9% in the first six months of last year. An overall balance of payment deficit on current account is also expected for 1985.

Outlook

There is every reason to believe that 1986 will mark a definitive turning point for the Kenyan economy which in 1985 recorded a 4.2% growth. To start with, early rains in 1984/85 has led to a bumper harvest in foodcrops. Deliveries of cereals to the National Cereals and Produce Board have been good. The latter's storage capacity, as already said, has increased considerably since the 1980 food shortages. Manufacturing has got the new lease of life it requires in import liberalization.

Early last year the government entered into a stand-by arrangement with the Fund—an agreement which authorizes it to make purchases up to K£ 68.8 million (SDR 85.2 m) over the next 12 months. The purchases are being financed from IMF ordinary resources and other resources. With Kenya's current quota standing at SDR 142 m, it will be able to deal with balance of payment problems during the year and foreign exchange will be



Vivian Univers

A crowd out to welcome President arap Moi during a visit to Eldoret
Kenya's population growth rate is believed to be the highest in the world at 4 % per annum

available to cover the import requirements of industries. There is in any case a new fire in the belly of Kenyan exporters who already have the reputation of being very aggressive in this area.

They showed what stuff they are made of last year, the Kenya Export Year (KEY). Poor export performances of 1980 to '83 led to declaration of the KEY operation by the country's export promotion association, the Kenya External Trade Authority. KEY has been so successful that it is to be extended to cover the whole of the period of the current Development Plan (1984-1988). Developments, over the past three years, will favour this focus on export. Firstly, the economy of the industrialized world, Kenya's biggest export market, has begun to recover from the recession; secondly, exports to the East African market are picking up again following the re-opening of the Tanzania-Kenya border in November 1984 (the bitterness and squabbles over the sharing of the assets of the collapsed East African Community having been settled by the three nations on the basis of the formula worked out by World Bank expert, Dr Victor Umbricht: Kenya 42%, Tanzania 32% and Uganda 26%. As Ke-

nya and Tanzania had already the bulk of the assets at the time of the collapse, they have agreed to pay respectively US\$ 144.7 million and 45 \$ 46.4 million to Uganda). The payment of this sum has meant significant loss of foreign exchange for Kenya but this pales into insignificance when the expected peace and the trade that will follow are taken into account. It is not for nothing that President Daniel arap Moi recently devoted much energy and time on the settlement of the Ugandan problem. Uganda already takes 10% of Kenya's exports while exports to Tanzania have risen from 0% to 1% since the reopening of the border. This will almost certainly increase in the coming years, although Tanzania's lack of foreign exchange will place limitations. Kenya nevertheless requires Tanzania's cotton for its cotton-starved textile industry.

With the recent agreement on the Northern Corridor, which will see the construction of a road from Mombasa through Uganda to Rwanda and Burundi, Kenya's trade with neighbouring states will be enhanced. The Preferential Trade Area (PTA), which stretches from Eastern to Southern Africa, holds out export possibilities, although Kenyan businessmen are said to be sceptical, not only because of the

apparent insignificance of the market (Zimbabwe, in fact, is the only country of importance), but also because of the requirement that 51% of a company's equity must be locally owned for its produce to qualify for preferential treatment. This, it is believed, eliminates a large number of Kenyan companies which are mainly foreign owned. Even those in which Kenyans have 49% equity are out.

Kenya's products, nevertheless, have been penetrating more and more African countries even as far afield as Nigeria. The Middle East has, as already indicated, become important and there is room here for expansion.

These export possibilities underline the need not only for increases in production but also for a diversification of the range of exports.

On the agricultural sector, Kenya's attempt to diversify has met with limited success. Only the horticultural sector has made appreciable impact as a foreign exchange earner, with pyrethrum leading the way. Demand for this product in the United States is increasing. This brings us back to the argument that diversification should take the form of increased production of food crops such as maize, wheat, potatoes, sugar, not merely on the basis of self-sufficiency, as is currently

the government's policy, but as a deliberate effort to make Kenya a breadbasket for many less-endowed nations. Kenya already exports food but to become realistically a breadbasket, more lands will have to be brought under cultivation in the dry region.

Manufacturing has had some of the constraints on it removed in recent years. The rains have meant adequate fodder for cattle and as such meat and milk production are expected to rise. Imports have been liberalized; bureaucracy, particularly with the issue of import and export licences about which businessmen have been complaining, is to be streamlined. President Moi has given them that assurance: export subsidies have been resumed; inflation is down from 22.3% in 1982 to about 11%; energy costs are down, thanks to cheaper oil and geothermal energy which today supplies 10% of the country's electricity. (Kenya is considering further exploiting the latter source of energy. On the other hand, cheaper world oil prices are expected to boost Kenya's petroleum industry: Kenya imports crude oil from the Middle East, and refines and sells fuel to neighbouring states).

The last two devaluations of the Kenyan shilling, which has been one of the strongest and most sought-after

currencies in Africa, have made Kenyan exports cheaper. Manufacturing output at the end of the second quarter of 1985 rose 3.5% as against 3.3% in a similar period in 1984, a confirmation of the upward trend in production. Employment in this sector increased by 3% in 1984, far below the population growth rate of 4%.

Population: the greatest challenge

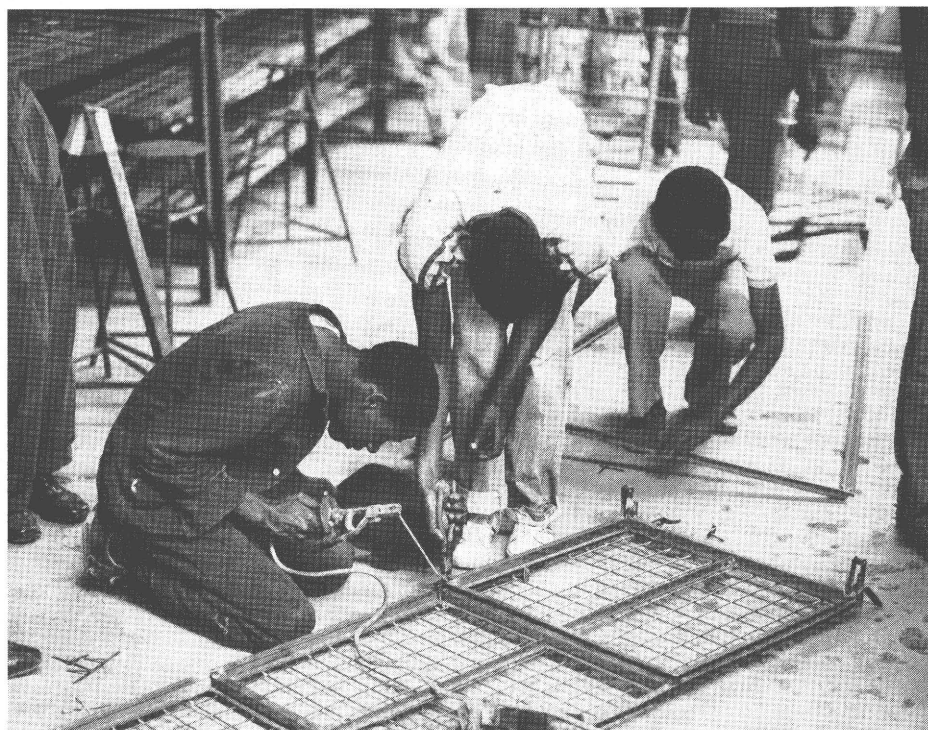
There are now 20 million Kenyans as against 15 million five years ago. The family planning campaign here is on a level never seen in Africa, with the government and the press in the forefront in efforts to avert what they describe as "famine, epidemics and despair" but which obviously is aimed at avoiding social and political disorder. It has been an extremely difficult campaign in a largely Catholic country. Pope John-Paul II on his recent visit did not help matters by condemning birth control.

Population pressure on social amenities has been enormous, particularly in Nairobi, the capital. Here, large numbers of the unemployed roam the streets and queue for days on end in front of factory gates for non-existent jobs. There are now calls in many quarters for a vigorous implementation of the Kenyanization policy, for aliens to vacate jobs for Kenyans.

In a desperate move to curb unemployment, the government has urged manufacturers to use labour-intensive methods. It is planning to decentralize industries in order to create job opportunities in the rural areas and stop the influx of people into the cities. Vocational training is part of the strategy. Workshops for carvers, carpenters, weavers, etc., are being established in the rural areas. These are being spearheaded by the cooperatives which have proved so effective over the years in Kenya's economic development. To ensure the success of these projects, rural electrification and water supply are top of the government priorities.

Kenya's economic planners have bounced back each time they have been knocked off balance. Population control and rural development are areas where their mettle will be tested in the coming years. ○

AUGUSTINE OYOWE



Professional training at the Undugu Vocational Training Centre

Vocational training is part of the government's strategy to beat unemployment

Profile

Area: 582 646 km².

Population: now estimated at over 20 million (15 327 061 according to the 1979 census).

Capital: Nairobi.

Other main towns: Mombasa, Kisumu, Nakuru.

Currency: shilling (KSh). 20 shillings is denoted K£. US\$1 = 16.2 KSh

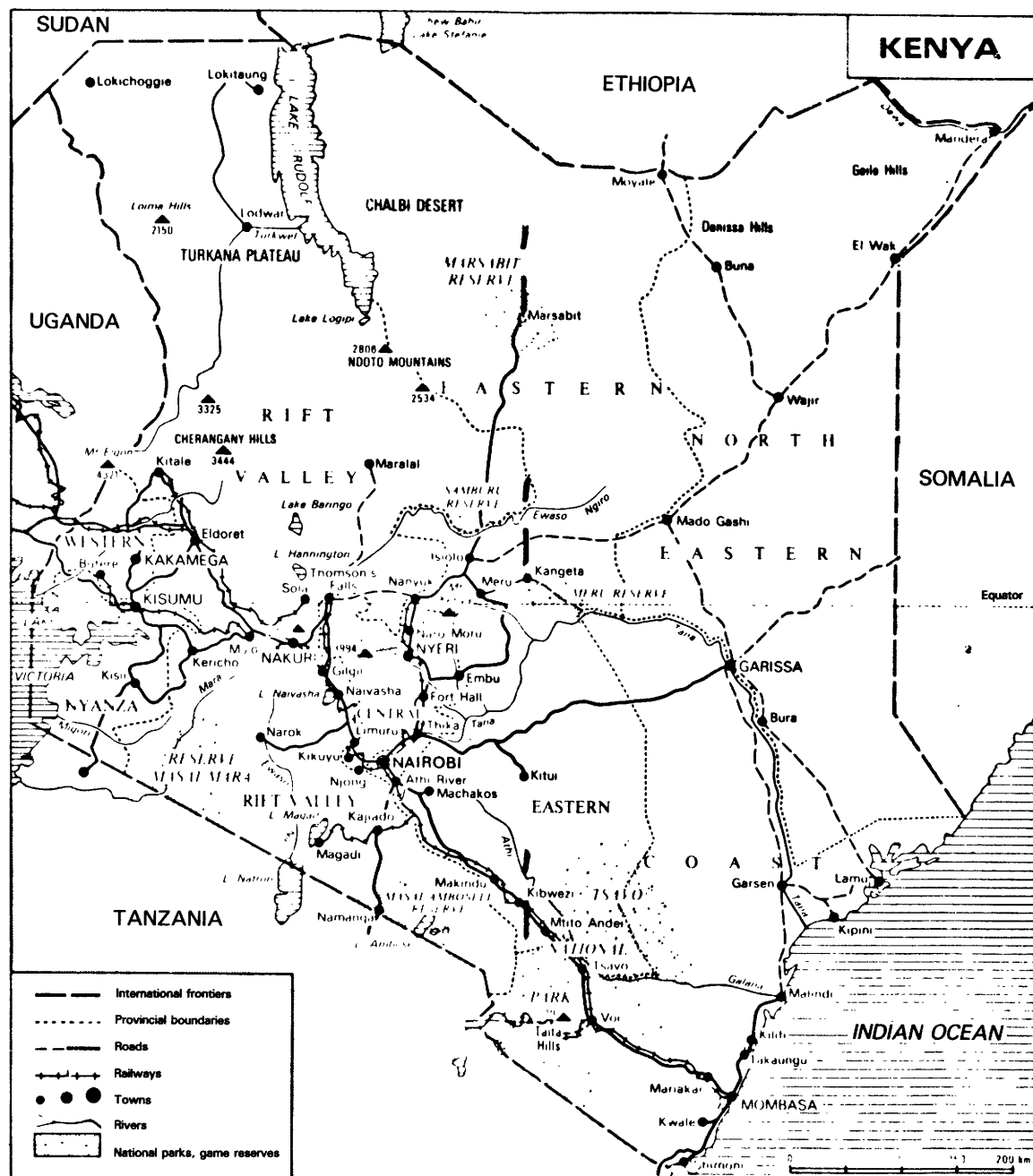
Main exports: coffee, tea, refined petroleum, pyrethrum, animal feeds, meat, hides and skins, beans, pineapple, sisal fibre, fluorspar.

Main imports: maize, wheat, fruit and vegetables, crude petroleum, organic and inorganic chemicals, phar-

maceutical products, fertilizers, synthetics and plastic materials, insecticides.

Main trading partners: The European Community, other African countries, the Middle East, Canada and the USA.

Gross Domestic Product: KSh 7050 million (1984).



OAU: the basis of Africa's successes

An interview with Elijah Mwangale Foreign Affairs Minister

Kenya has shown its readiness in recent months to play a more meaningful role in African affairs. Witness President Daniel arap Moi's marathon attempts to settle the Ugandan problem, for example. As a politically stable country with one of the few vibrant economies in the continent, the country is seen as particularly well-placed to get more involved. The Courier, in this interview, raised a number of pressing African issues with Foreign Affairs Minister, Elijah Mwangale.

► *Minister, the 21st Summit of the OAU saw consensus emerge on how to deal with Africa's economic decline and the situation in Southern Africa. Past experience has shown that issues of a purely political nature in the continent lead to deadlock, division, and sometimes acrimony. Do you not think that the OAU should henceforth concentrate on economic development and on the situation in Southern Africa which are after all, more pressing?*

— The OAU is a very important political organ for the promotion of Panafricanism and cooperation among African countries. This has been the basis of success in the decolonization of most of Africa. The struggle for independence and, out of it, the successes in Angola, Mozambique, Cape Verde and lately in Zimbabwe and many other countries in Africa which became independent much earlier, could not have taken place without OAU political pressure. Sometimes there have been occasional political differences in the organization, but this is quite normal in an organization of the size of the OAU. In fact, much smaller organizations like the EEC, for example, are known to have many differences. At present, the OAU is giving highest priority to the economic development of the continent, the liberation of Namibia, and the struggle against apartheid in South Africa.

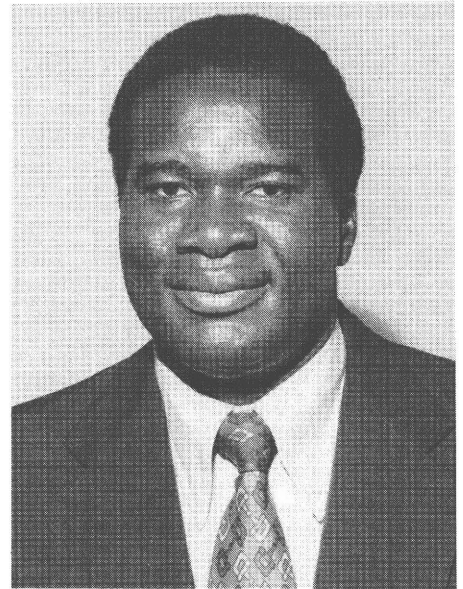
The OAU is already concentrating on the economic development of the continent and the problems of Southern Africa. You will recall that, five years ago, in 1980, the African Heads of State and Government adopted the Lagos Plan of Action for the economic development of Africa. This is the reference book, our blue book as we call

it, for Africa's development between 1980 and the year 2000.

Since 1980, African countries have also been gearing their efforts at sub-regional levels to cooperate among themselves on the principle of self-reliance. In the Eastern and Southern African sub-regions we have the Preferential Trade Area (PTA) and the Southern African Development Coordination Conference (SADCC). The PTA agreement contains a whole protocol in respect of Botswana, Lesotho and Swaziland to enable these countries to disengage themselves from the Southern African Customs Union in which South Africa is also involved. The three countries are given temporary exemption from the full application of certain provisions of the agreement to phase them out of dependence on South Africa. Similarly, SADCC, some of whose members also participate in PTA, aims at reducing reliance on South Africa. The PTA and SADCC are backed fully by the OAU. Their member states give material and financial support to the liberation movement in Namibia and support fully the fight against racism and racial discrimination and violations of human rights in South Africa. African countries, under the auspices of the OAU, have concentrated all their political and economic efforts in the fight against colonialism and apartheid and their effects in South Africa.

► *You've mentioned the PTA. Kenya appears to place a high premium on it. Why?*

— Well, Kenya supports the Treaty establishing the PTA for Eastern and Southern African States. Kenya, of course, alone contributes about one



Elijah Mwangale

fifth of the PTA budget. The PTA is one of the good examples of sub-regional cooperation in Africa, based on the principle of self-reliance. It will contribute towards the economic integration of Eastern and Southern Africa, and the eventual integration of Africa as envisaged in the Lagos Plan of Action. In the PTA, we hope to develop trade among our countries through the reduction and eventual removal of tariffs and the use of the clearing house. We also hope to intensify cooperation in the vital sectors of agriculture, industry and transport and communications. Under the PTA, trade and local banks aim at contributing to the economic development of member states through participation in their development projects. As trade develops, the net effect would be the expansion of industrial and agricultural production in the member states. Kenya and other member states will, therefore, benefit economically from the PTA.

► *I understand Kenyan businessmen are not particularly keen on the PTA because of the qualification requirement, 51% indigenous participation in companies. How do you view this?*

— It is not the Kenyan businessman who is arguing about that. It is the Kenya Government itself. It is us who are saying: "Show us a single country that today can claim to have all the industries that can produce what is required in the PTA region

without having any external investments". In fact, it is like cutting off your own nose to spite your face. We cannot do that. We are saying: "You take the companies that are so-called 100% or 70% or 80% owned by Kenyans or Tanzanians. They are either government organizations or parastatals or they are not producing such good quality goods that can compete in other markets—their actual inputs are too expensive". If, on the one hand, we are encouraging investors from overseas to come and invest here and are saying: "Look, you cannot sell within the PTA region, because you must at least be 50% or 60% indigenously owned", it is all wrong. So what we are telling our PTA partners is that, as long as a member state has a product, let that product be sold on the market. We're not talking about proportions and we are going to change it because it is ridiculous. I think it was wrongly negotiated. We are simply saying: "Look, in order for us to make it effective, to get investors to come and invest with us, in order to encourage the very local businessmen to come up, to be able to claim the technology and the manpower experience he requires, to start to compete even with those overseas investors in their own countries and in order to develop the market here sufficiently, we had better not put any barriers at all".

► *Africa's debts are crippling. Indeed they constitute one of the greatest obstacles to the continent's development. How great is the temptation to default? How can Africa overcome this problem?*

— Africa's debt was estimated at over US\$ 170 billion at the end of 1985 and I'm sure it is still increasing. Africa alone cannot overcome its debt problem when we know that African countries are spending an average 27%, or more, of their export earnings on debt servicing. Africa's debt is compounded by factors such as declining concessional aid flows, high interest rates and fluctuations and low prices for their primary commodities. The result is that African countries are unable to earn enough foreign exchange from exports to repay their debts. Furthermore, they are repaying their debts at interest rates which are much higher than those at which the

loans were borrowed. The present international monetary system is so unsteady that African currencies are often devalued, making it too expensive to buy the convertible currencies. Kenya feels that the creditor countries have an obligation to enable African countries to pay their debt.

The creditors should apply the following methods in the way we see them ourselves: (1) agree to reschedule the old debts and turn some of them into grants; (2) increase substantially the official development assistance bilaterally and through multilateral lending organizations such as the International Development Association; (3) to import more African manufactured goods and primary commodities to enable African countries to earn the much-needed foreign exchange; (4) support the proposed International Conference on Africa's external indebtedness and, finally, encourage private investment in the continent. I'd like to emphasize that no African country has ever thought of defaulting or of refusing to accept that a debt is an obligation that must be met.

► *The unrest in South Africa has increased in intensity. The country is gradually slipping into civil war. What can the rest of Africa do to prevent peace-loving neighbouring states from*

being engulfed in the impending conflagration?

— African countries can, individually and collectively through the OAU, continue to mount the political pressure that they are placing now on South Africa: diplomatic pressure to force South Africa to abandon its apartheid policies. We believe also that all peace-loving countries of the world can support Africa in this task by applying economic and political sanctions against South Africa.

► *Foreign exchange is a major problem for Kenya. What is your policy on barter or counter trade?*

— Frankly this counter trade or barter is a fantastic system. We should really get into it. We are currently studying the whole question. We will deal with the issues case by case. But it's a very, very interesting area.

► *For intra-African trade particularly?*

— We are looking at the whole scope. We are doing that especially with intra-African trade. We have not applied it to other continents. However, the Government policy is that payments should be made in freely convertible currencies. We love currencies better. ○ Interview by A.O.

On course for improvement in the standard of living, says Dr Robert Ouko

Deflation and price control are part of the government's economic strategy. Unemployment is rising faster than the rate of job creation. Minister of National Planning and Development, Dr Robert Ouko, talks about these and other issues.

► *Deflation has had a salubrious effect on the economy as a whole, but how has this been reflected in the standard of living of Kenyans?*

— Recent economic growth has been affected by acute balance of payments difficulties and the 1984 drought. The stabilization policy pursued by the Government has helped to steer us through this period of difficulties and the economy is now set on the

course of recovery, the course of economic growth and improvement in the standard of living of Kenyans.

► *Why does the Government consider price control essential for a liberal economy such as Kenya's?*

— Prices of essential goods have been controlled in order to protect the living standard of the wage earners of the community as a whole and also to

control the margins of profit in businesses which are employing or are enjoying monopoly status in the market. If you don't do that, you are likely to create disaffection, particularly when some of the essential goods are likely to find their way outside the community.

► *Employment grew in the past five years at around 3% per annum but the number of job-seekers has grown much faster. What strategy is the Government adopting to increase employment opportunities?*

— Firstly, it is important to understand the real cause of the rather rapid increase in the number of people in Kenya, some of whom remain unemployed. This is due to the rather rapid rate of population growth. And so our first target is to do something about this rapid rate of population growth. The Government is going out of its way to implement policies and employ strategies which will reduce the number of children per family. This family planning activity has been given a tremendous boost by the personal initiatives of our President, His Excellency, President Daniel arap Moi. And all leaders of the country, particularly the party leaders (KANU leaders), have followed the President's example and are preaching to the nation the need for the effective implementation of family planning. But the 3% per annum growth in employment has been largely as a result of the Government's own direct hiring. And although the Government will continue to invest in employment creation by pursuing job creation policies as suggested by the Presidential committee on unemployment, the Government will develop other facilities that are geared to supporting private sector growth.

► *What does the Export Processing Zone entail and when will it get off the ground?*

— It will not get off the ground in the immediate future. It has been postponed indefinitely. We are likely to try, in the future, to manufacture under bond, but even that has not yet started.

► *Can Kenya realistically compete abroad with manufactured goods that have a high import content?*

— Our policy, as a country, is going

to be to do everything in our power to improve our international competitiveness in the goods that we manufacture and which we have to sell outside Kenya. Pricing is just one aspect of the total problem.

► *At the March 1985 mini-conference of donors, Kenya requested 100% financing by them of their projects. What has been their response?*

— Their response has been encouraging. We believe they understand the reason for that kind of request. We are keen to ensure that projects financed by external donors are com-



Dr Robert Ouko

pleted and one way of making sure that they are completed is to get the donor agency or the donor country to provide 100% finance for it, particularly in view of the economic problems to which developing countries have been exposed. Secondly, the Government itself has an obligation to meet the recurrent expenditure involving these projects once they are financed by external donors. So, by asking the external donors to finance the initial capital up to 100%, it does not mean the Government is not playing its part. The Government picks up the recurrent implications in these projects either immediately after implementation or soon after the field agreed upon by the donor country has elapsed.

► *I understand a directive is out to officials asking them to be more circumspect about foreign loans. What then is the rationale behind this?*

— The rationale behind this is because external debt is a burden and it adds to our external debt burden (the debt we have to repay). And so the Government wants to make sure that we incur such debts as are necessary and which have a direct impact on the growth of the economy or on job creation or amelioration of the balance of payments problems. There will continue to be capital projects in Kenya. All we are saying is that we will in future be a lot more careful about which ones do come up with the burden of external debts.

► *Regional cooperation is widely recognized as vital to economic development. Has there been a follow-up to the March 1985 Arusha Agreement, especially with regard to the setting up of a coordinating office between the erstwhile members of the East African Community?*

— Yes, definitely so. The East African Community mediation agreement was signed on 14 May 1984 at Arusha by the Heads of State of Kenya, Tanzania and Uganda. The agreement resolved the question of dividing the assets and liabilities of the former East African Community among the partner states and provided for future cooperation. Since then, several meetings have taken place at ministerial level and also at the level of officials to determine or recommend areas and forms of cooperation among the three states.

► *Red tape is said to be one of Kenya's big problems. The President himself has pledged to reduce, if not eradicate, it. What measures have been taken?*

— Red tape is not a Kenyan problem. It is the problem of governments all over the world. We only have our share of it and, as far as we are concerned, we have taken adequate measures to try and reduce and, if possible, eliminate altogether the red tape. Firstly, we have adopted simpler rules and regulations. Secondly, the staff, through training in government institutions, have been exposed to new methods of doing things, to a new spirit of national service which increases their sense of responsibility and, therefore, a sense of urgency in dealing with matters at their disposal. Thirdly, the Government has a system

according to which those whose output, judged against preset yardsticks, is high, are suitably rewarded for the good work done and those who are lax are cautioned and advised to pull up their socks.

► *How important has the European Economic Community been to Kenya since Lomé I and what do you expect from Lomé III?*

— The European Economic Community is, first and foremost, Kenya's biggest trading partner. Secondly, the

EEC is the largest single source of aid to Kenya. And thirdly, through the Lomé Convention, Kenya does receive her share of the aid funds. And for these reasons, among others, the EEC is vital to Kenya's development. Our relations with the EEC are vital: in Lomé I, Kenya's share of development assistance was ECU 72 million; in Lomé II, it was 88 million; in Lomé III, the figure is well over ECU 100 million. This is going to be a significant addition to Kenya's development resources. ○ Interview by A.O.

farms have agreed to have either the whole of the farm or part of it subdivided to enable individuals to own their individual plots. This is understandable because with land ownership there is more commitment on the part of the farmer to make maximum use of the land for food production.

► *Your policy of price stabilization for farmers has succeeded in giving them acceptable incomes and improving their lot. Why has this fact not stemmed the rural exodus?*

— Well the rural exodus cannot just be explained or cannot just be stopped because farmers are getting better incomes. There are other factors that pull rural people towards the towns. There are facilities, for example, that particularly the young men and women see in the towns which pull them there. I must say that this rural to urban movement will only be slowed down when those facilities are created in the rural areas. For example, when we start agri-businesses in the rural areas, in the rural markets, when there are facilities for employment, when social amenities are provided: better schools, better medical facilities, better communication, electricity to rural homes, etc., then there will be no need for people to rush from rural areas to the urban centres. This is a long process, but we must appreciate the fact that if the people are to stay in the rural areas, the rural areas must be made attractive to them.

► *Fertilizers are intensively used in agriculture in Kenya. Your Government has for years been talking about*

“Our beef herd is coming up strong”, says Odongo Omamo, Minister of Agriculture and Livestock

Critics have deplored the use of vast areas of arable land in Kenya for tea and coffee cultivation. With population pressure on both land and food, the only possibility now for increased food production lies in the semi-arid and arid regions. What steps are the Government taking to bring more lands in these areas under cultivation? Minister of Agriculture and Livestock, Odongo Omamo replies.

— First of all, critics should not criticize the acreage under tea and coffee in Kenya. There is a very good balance between cash crops and food crops here. Kenya must have a source of foreign exchange. We have not yet discovered oil, we have no large deposits of gold nor of diamonds. We have to depend on our own agricultural produce to earn foreign exchange. And therefore, the acreage under tea, for example, is quite sufficient and, if we could, we would increase it. The acreage under coffee is just enough. Under the International Coffee Agreement, we cannot increase that acreage but it is just sufficient. However, because of our national food policy which requires self-sufficiency in food and a surplus for export, and because of the rising population, we have got to bring more land under food production, that's why we are right now tackling arid and semi-arid areas to bring them under food production through irrigation, through the introduction of drought-resistant crop varieties and through the raising of livestock that can cope better in these dry areas.

small farmers in Kenya. How many of these own their land?

— Most of the small farmers in Kenya own their land and the titles to those lands. The tendency in Kenya over the last couple of years has been for the large-scale farms to be subdivided to enable the individuals to own them. For example, members of cooperative societies that have large-scale



Vivian Univers

► *There are an estimated 2 million*

“The acreage under tea is quite sufficient and, if we could, we would increase it”

setting up a fertilizer factory. Why has this not happened so far?

— Now, Kenya's attempt to build a fertilizer factory has not met with success because of mismanagement by international companies involved. In fact, if I may put it bluntly, Kenya was cheated by those international companies. We have tried to build a fertilizer factory down at the coast, but up to now we have not yet succeeded. The Government has had to re-think its fertilizer strategy and, at the moment, we are not embarking on this project, not in a hurry, no.

► *To what extent is soil erosion a major handicap to agriculture in Kenya? How serious is the problem?*

— It is a very serious menace in the agricultural areas. The top soil that goes into the Indian Ocean is lost forever. In western Kenya, in the Nile Basin, the soil that gets into Lake Victoria, into the Nile, across Uganda, across Sudan, into Egypt, into the Mediterranean is lost forever. And, we have got to realize that it takes many, many years to build the soil. And the Kenya Government is now fully aware that everything must be done to stop soil erosion, to stop flood erosion, to stop wind erosion, to stop gully erosion by using the latest methods. There is no second thought about this. I was talking the other day to my friend, the Egyptian Ambassador to Kenya, I asked whether they need any top soil from Kenya, and from East Africa, the Ambassador said: "No", they only need Nile water. So any soil that is allowed to get into the rivers, to get into Egypt is just lost. The Egyptians don't need our soil.

► *After the shortfall in food production resulting from the 1984 drought, how do you rate the 1985 harvest?*

— The 1985 harvest is a much better harvest. In fact, there are instances where, because of the good weather, the good rainfall, we are certain that individual crops will perform above average, for example, in maize. In western Kenya, in central province, even in the eastern area, 1985 was a very, very good year for beans. It is my prayer that the good weather should repeat itself in 1986.

► *Is the National Cereals and Produce Board more adequately equipped*



"As for beef, our herd is really from different and difficult areas, ecologically speaking, ... from arid and semi-arid areas. The raising of these cattle takes a little bit longer"

to cope with surplus food to avoid the repetition of 1980 disasters?

— Yes. The major problem with food was first to determine the strategic food reserves. In 1980, the Board did not watch the dwindling of strategic food reserves. Now it is being watched. Secondly, the Board is building food stores in strategic areas to make sure that the grains are stored as cheaply as possible, and are made available whenever they are required. The other point is that the Board has done very well in making sure that food is not lost and is not destroyed in store. The Government is encouraging the Board to build the kind of food store that will help the grains to last longer. The Government is also encouraging farm food storage because that is the most important food, the food right there on the farm. The surpluses that go to the Board's stores are actually meant to feed the urban population, but for the rural people, the farmer should have his food stored right there on the farm as much as possible.

► *Kenya has one of the largest herds of cattle in southern and eastern Africa, yet its beef industry cannot be compared in size and importance with those of Botswana and Zimbabwe, for example. Why is this so?*

— I do not know the size of cattle herds in Botswana and Zimbabwe, but as far as Kenya is concerned, it is true that our herd has picked up very, very strongly, and there is a very strong dairy industry in the country. As for

beef, I would like to add that our herd is really from different and difficult areas, ecologically speaking. These are from arid and semi-arid areas. The raising of these cattle takes a little bit longer. Marketing them takes a little longer. Every drought hits these areas very hard because they are arid and semi-arid. The other point is that Kenya is not favoured with very large tracts of land, very large tracts of grassland that can support very large herds. Indeed, the arable land which is just about 20% of our land, is being competed for by crops, dairy herds and beef herds, and the beef herds tend to be the losers. I would like to add another point, that Kenya has got to fight several endemic cattle diseases, particularly the tickbone. There were occasions when Kenya succeeded in eliminating some of these diseases, for example, rinderpest. But our neighbours have not been so successful, so we get infection from across the border. But I would like to assure you that the beef herd in Kenya is coming up strong, we are encouraging the Zebu beef type, which is as good as any in the world, as well as the Sahiwal which is dual purpose. The redpolls are truly established here including the Santa Gertruda group of cattle from America. And I have no doubt in my mind that with improvement in cattle cleansing, in fodder crops, in permanent pasture grasses, in the improvement and management of our range land, the beef herd will definitely increase both in quality and in quantity. ○

Interview by A.O.

KENYA

A brighter future for tourism

Tourism is big business in Kenya and it is getting bigger all the time. You need not go to the impressive Utalii House in Nairobi where the KTDC (Kenya Tourist Development Corporation), the Ministry of Tourism and a number of tour operators are housed to realise that. This is the country which, for nearly half a century, has fascinated men and women all over the world with its wildlife resources, the safari and holiday-of-a-lifetime dream country which made tourism respectable and fashionable in Africa as an important vehicle of economic development. Visitors to Kenya have risen sixfold over the past 23 years, from 61 350 at independence in 1963 to 376 000 in 1984. Employing well over 70 000 people, it is now the second most important source of foreign exchange after coffee. It earned a high K£ 154 million in 1984 and is thought to have brought in far more in 1985 — about K£ 165.7 million. This is because 1985 was a record year in the number of visitors. The fact that many conferences organized in the country, three of which were large ones: the Non-Governmental Organizations' Forum, the end of the UN Women's Decade Conference and the Eucharistic Congress, also contributed to the increase.

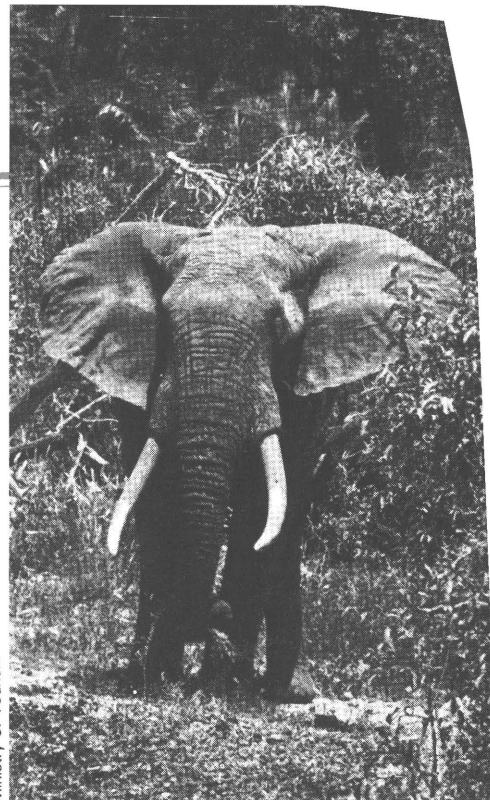
Like the other sectors of the economy, tourism has had its ups and downs. The recent worldwide recession which particularly hit North America and Western Europe, the traditional sources of most of the visitors to Kenya, has had adverse effects. These were minimized, however, by the weakness of the Kenyan shilling against the pound sterling, the deutschmark and the dollar, making visits to the country relatively cheap despite soaring air fares.

The collapse of the East African Community and the closure of the Tanzania-Kenya border were shocks which did less damage than expected: tourists who traditionally preferred to combine tours to Kenya, Tanzania and Uganda came all the same to Kenya after the closure of the border, even spending more bed-nights than usual. They were drawn, no doubt, by the country's unique attractions and facilities.

The authorities have left no stone unturned in their efforts to consolidate

the industry. Measures have been taken to maintain those attractions and facilities that give Kenya the edge over rivals: a total ban on hunting and the sales of game trophies was imposed in 1977 to conserve Kenya's wildlife resources and the government is discouraging the capture of animals for zoos which it considers are unnatural habitats. (It has, though, been responding favourably to demands from other African countries for certain species).

Hotel accommodation over the years has increased considerably in Nairobi and in the eastern region, especially along the coast, the traditional tourist resorts. Overall, bed occupancy is around 50% but this is a false picture because in Nairobi and in the east, it ranges from 60 to 75% but it is down to 20% or less in the west. This explains why the authorities are adopting a new approach in their publicity campaign, urging tourists to go west and "meet the people" as well, not just wildlife and beaches. They are backing this demand by doing up the



Ministry of Tourism

The Government is discouraging the capture of animals for zoos in order to conserve the country's wildlife

hotels and game lodges and improving communications between and with those zones that have been isolated in the past. Officials of the Ministry of Tourism are already claiming success.

With economic recovery gradually but surely underway in North America and Western Europe, the authorities see a brighter future for tourism which has been boosted by the re-opening of the Tanzania-Kenya border: combined tours can now be resumed, not only with Tanzania but also with the Seychelles, although Kenyans are slightly worried over the facilities across the border which have been run down during these years of closure and over the possibility that this will rub off badly on Kenyan tourism.

International tourism apart, the authorities have embarked on another campaign to encourage domestic tourism. "We think that Kenyans should travel as widely as possible not just in their official capacities but privately, at weekends, public holidays and on leave to make use of those hotels and facilities which are today made use of by foreigners," says Andrew Ligali, the Permanent Secretary in the Ministry of Tourism. This makes economic sense. Domestic tourism will help keep hotels in business, particularly during off-peak periods; it will contribute to a more wide distribution of income and, of course, enable Kenyans to learn more about their own country. ○

A.O.

1981-1985 number of visitors to Kenya and foreign exchange earned

Source: Ministry of Tourism

Year	Number of visitors	Foreign Exchange earned in K£
1981	352 183	90 million
1982	361 801	118 million
1983	366 000	122 million
1984	376 000	154 million
1985	380 000 (est.)	166 million (est.)

EEC-Kenya cooperation

By Lutz SALZMANN (*)

Kenya's formal relations with the Commission of the European Communities date back to 1968 when the Arusha Convention was signed, covering trade relations with the EEC. In 1975 Kenya was one of the original 46 ACP States to sign the First Lomé Convention. Since 1978 Kenya has had an ambassador in Brussels who is also accredited to the Commission of the European Communities. The Commission's Delegation office was opened in Kenya in 1976.

The European Community is Kenya's most important trading partner. More than one third of the country's total trade is with the EEC. In 1984, 67% of Kenya's coffee exports and 52% of the tea exports were marketed in EEC countries.

The EEC's and its Member States' share in overall official development assistance to Kenya has fluctuated in recent years between 40 and 50%. This represents an amount of about ECU 150 to ECU 200 million per annum. The United Kingdom, the Federal Republic of Germany, the Netherlands and Denmark are among Kenya's main bilateral donors while the European Development Fund and the European Investment Bank are among its main multilateral donors.

Within the framework of the Lomé Convention, Kenya is one of the larger ACP recipients of funds from the European Development Fund, the EIB, the Regional Programme and Stabex. In 1983, Kenya was one of the four ACP countries the EEC was helping in developing a food strategy.

Financial and technical cooperation

First Lomé Convention

The Fourth EDF Financial and Technical Cooperation Programme for Kenya under Lomé I (1975-1980) amounted to ECU 72 million. Howev-

er, the total volume of financial transfers under this Convention was about double the above-mentioned amount. This included loans of ECU 53.6 million from the European Investment Bank (EIB), interventions in emergency situations (ECU 1.34 million), EDF interest subsidies to EIB operations (ECU 9.55 million), and participation in EDF-financed regional programmes in Eastern Africa. Table 1 gives a list of all projects and programmes financed by the EDF under Lomé I.

Second Lomé Convention

During Lomé II (1980-1985), the Fifth EDF's financial participation in Kenya's development amounts to ECU 88 million in the National Indicative Programme. Of this, ECU 39.8 million are in the form of loans on special terms, and the balance is provided in the form of grants.

The European Investment Bank originally expected to lend ECU 60 million at subsidized interest rates or in the form of risk capital. By October 1985, the EIB had committed ECU 46.85 million for 6 projects.

Under Lomé II, Kenya is so far participating in 10 regional projects in

Eastern Africa. The largest of these projects is the Northern Transport Corridor Scheme in which Kenya's share is ECU 8 million.

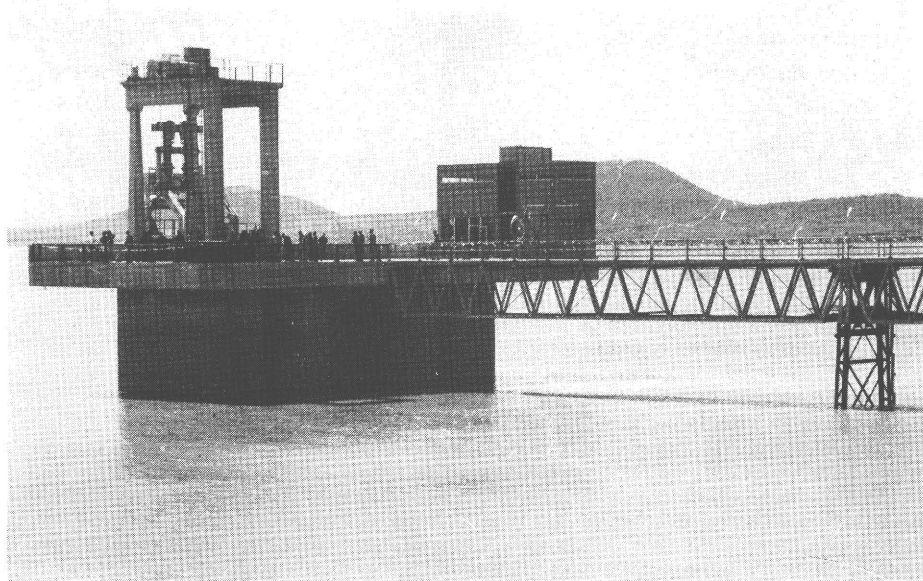
There were also three emergency interventions during the Lomé II period involving a total assistance of ECU 2.4 million. Under the provision of the Stabilization of Export Earnings Scheme (Stabex), Kenya received a total of about ECU 31 million for the loss of coffee export earnings in EEC markets during the years 1980 and 1981. Recently, EEC support to Kenya's food security programme has become an important area of cooperation. Table 2 gives a list of all projects and programmes financed by EDF under Lomé II.

Other EEC financial assistance

During the period of the Second Lomé Convention, Kenya also received other EEC support in areas not covered by the Convention.

Food aid, comprising mainly cereals, has regularly been made available both directly and through intermediaries (including UN bodies) and Non-Governmental Organizations. Recent years saw wheat supply to Kenya in the order of 15 000 tons in 1982, 16 000 tons in 1983 and 26 000 tons in the drought year 1984.

Under the EEC's programme for co-financing projects together with Non-Governmental Organizations, more than 50 small-scale self-help projects have been supported since 1976 inclu-



The Masinga dam which was co-financed by the EDF, EIB, KfW and ODA

(*) Lately Economic Adviser, EEC Delegation, Nairobi.

KENYA

sive, with a contribution of ECU 3.9 million.

Within the framework of a Special Action Programme in 1980-1981, which was implemented through the World Bank, Kenya received an amount of ECU 13.2 million.

In the context of its Action Programme to Combat World Hunger, the Commission decided to support Kenya in its food production policy with ECU 4 million for 1983.

Trade cooperation

Kenya's trade deficit with the EEC has systematically been reduced over the recent years from K £179 million in 1980 to K £75 million in 1984. In 1984 the value of total exports to the EEC market grew by 36% over the previous year. Exports to the United Kingdom and the Federal Republic of Germany reached record levels in 1984. This success is partly the result of a rise in tea and coffee prices on the world market.

Coffee, tea, sisal and pyrethrum are covered by the Stabex under which Kenya received large payments (ECU 31 million) in 1980 and in 1981 to



An EDF-financed plant nursery, part of the Machakos Integrated Development Programme

compensate for the loss in coffee export value to EEC markets.

Priorities of cooperation

In the National Indicative Programmes financed so far by the EDF, priority has been given to the following sectors:

Rural development and food production	53%
Development of hydroelectric power potential	20%
Rural road development	8%
Training and development of technical education facilities	8%

The remaining funds were earmarked for technical assistance including studies in industrial, trade and tourism promotion as well as rural health programmes. There has been a heavy concentration of EDF funds on rural development, food production and energy resources in line with the economic priorities of Kenya. The structure of EDF activities within the rural and food production sectors has been varied, including rural water supply, drainage, extension services, rural community development, irrigation and land reclamation. Part of the programme was carried out in semi-arid areas.

The Regional Programmes of the two Conventions in which Kenya has participated show a concentration on the improvement of road links to neighbouring countries (Sudan, Uganda, Somalia) and on control of animal and human diseases and migrant pests. The regional road programme is most important for the promotion of intra-African trade. As Kenya is the host country to regional organizations in the human and animal health sector, it was logical to launch corresponding regional activities.

Table I: Lomé I — Commitments

EDF IV — national	ECU
Machakos Integrated Development Programme	17 795 116
Med. Infrastructure Machakos	2 300 000
Veterinary centres & cattle dips	3 000 000
First micro-projects	556 500
Second micro-projects	1 243 444
Third micro-projects	620 500
Trade promotion	400 000
Mathare Valley	1 375 000
Kawangware improvement	2 410 000
Multiannual training programme	2 300 000
Dandora workshop clusters	215 000
Bura irrigation scheme	10 618 000
Athi River development study	300 000
Technical study — rice, nyanza	250 000
Tse-tse preliminary study	29 884
Energy consultancy	140 000
Lamu district planning study	300 000
Rural industrial development project	800 000
Upper Tana reservoir scheme	26 340 000
Review energy model	5 000
Geophysical survey	1 000 000

Cooperation envisaged under the new Lomé III Convention

The priorities in Kenya's development strategy are the results of the main constraints existing in Kenya including:

- a high population growth rate of approximately 4% per annum
- an accelerated urbanization rate contributing to increased urban poverty
- dependence on fluctuations of climatic conditions. (Kenya has had two serious droughts in recent years)
- dependence on external economic factors such as world market prices for coffee, tea and crude oil
- under-utilization of the country's natural resources, to name a few.

Kenya's development strategy is concentrated on improving living, production, market and environmental conditions in the rural areas with particular focus on smallholder development. The major concentration sector envisaged for EEC-Kenya cooperation under Lomé III is food security, agricultural and rural development, which is likely to absorb around 80% of the resources being made available.

The Commission has informed the Government of Kenya that under Lomé III, ECU 122 million is being provided for national development projects. Of this amount, ECU 112 million will be in the form of grants and ECU 10 million in the form of soft loans.

The EEC will support Kenya's objectives of maintaining broad self-sufficiency in main foodstuffs, to achieve the required degree of security of food supplies in all areas of the country, and to ensure adequate speedy distribution of food supplies. The EEC has already entered into a dialogue on key issues of food security with the Government of Kenya. The main issues of this dialogue include aspects of producer prices, provision of adequate agricultural inputs at reasonable prices, the timely payment of farm producers, the reorganization of the grain marketing system, and the improvement of agricultural research and extension services. In this connection, the EEC is playing an important role in the coordination of donor activities in the above-mentioned areas.

Table II: Commitments/financial agreements under Lomé II

Agriculture & rural development	ECU
Machakos integrated development Prog. I	1 704 884
Machakos integrated development Prog. II (water)	8 974 000
Machakos integrated development Prog. II (rural)	6 226 000
Nyanza rice	4 350 000
Kisii Valley bottoms	4 822 000
Veterinary laboratory Mariakani	3 400 000
Bura management Phase I	500 000
Bura management Phase II	1 550 000
Energy & mining	
Turkwel generation study	250 000
Geophysical survey	95 000
Transport	
Sergoit-Tambach road construction	9 000 000
Sergoit-Tambach road supervision	1 000 000
Microproject programme	
First programme	953 000
Second programme	1 839 500
Third programme	1 945 000
Education & training	
Multiannual training programme	1 500 000
Manpower planning	163 000
Eldoret Polytechnic	6 500 000
Studies	
3rd Polytechnic study	400 000
Bura management study	42 000
Microproject appraisal	24 000
MIDP II study	100 000
Masinga soil conservation	400 000
Primate research study	85 000
Industrial sector study	30 000
Fertilizer study	493 000
Technical Assistance Experts	1 745 000
Health	
Primate Research Institute	1 000 000
Trade promotion	
General programme	1 000 000
Fairs	32 000

In the regional context Kenya is a gateway to industry for a number of landlocked countries. Kenya is also a key trading partner for intra-regional trade because of its strong industrial sector (in relation to the countries in the region) and its efficient transport system. Kenya's national development strategy is therefore specially designed to support the country's role in the areas of regional transport and regional trade. The EEC has signalled to the

Government of Kenya its preparedness to support the country's plan to revive cooperation within the East African and Southern African areas. This includes the programme envisaged for the Northern Corridor development linking Kenya's port, Mombasa, with Uganda, Rwanda, Burundi and Zaïre. It also includes assistance to the Preferential Trade Area organization. ○

L.S.

EEC-Lambiotte



The enlarged Delors Commission

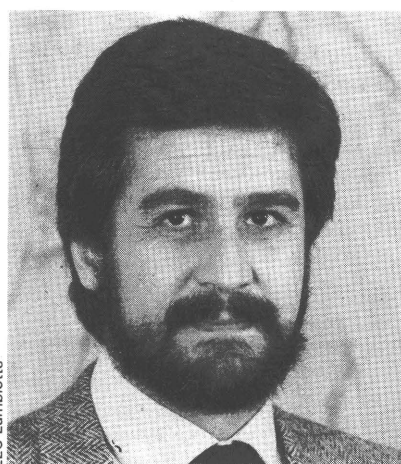
On 1st January 1986, with the accession of Spain and Portugal to the European Community, the number of Member States rose from 10 to 12 and the college of European Commissioners, the Commission, increased in its turn from 14 to 17 members. Thus, from the beginning of January, two new Spanish Commissioners, Sr. Manuel Marin and Sr Abel Matutes and one Portuguese Commissioner Sr Antonio Cardoso e Cunha, joined 14 colleagues already in their jobs since January 1985 (see *The Courier* N° 90 March/April 1985). This was the moment for a redistribution of portfolios, details of which we are publishing, along with a short presentation of each of the new Commissioners.

(1) Jacques Delors — President: Secretariat-General; Legal Service; monetary affairs; Spokesman's Service; Joint Interpreting and Conference Service; Security Office.

(2) Lorenzo Natali — Vice-President: Cooperation and development.

Manuel Marin Gonzalez

Spanish, 36 years old, Doctor of Laws, former member of Cortès, former State Secretary for relations with the Community.



EEC-Lambiotte

Abel Matutes

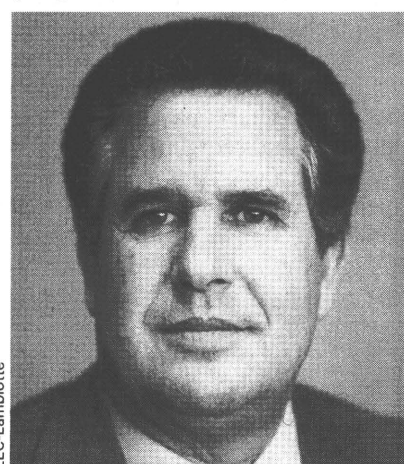
Spanish, 44 years old, degree in law and economics, former Senator, former member of Cortès.



EEC-Lambiotte

Antonio Cardoso e Cunha

Portuguese, 52 years old, degree in chemical engineering, former member of Parliament, former Minister of Agriculture and Fisheries.



EEC-Lambiotte

(3) Karl-Heinz Narjes — Vice-President: Industrial affairs; information technology; research and science; Joint Research Centre.

(4) Frans Andriessen — Vice-President: Agriculture; forestry.

(5) Lord Francis Arthur Cockfield — Vice-President: Internal market; Customs Union Service; taxation; financial institutions.

(6) Henning Christophersen — Vice-President: Budget; financial control; personnel and administration.

(7) Manuel Marin — Vice-President: Social affairs and employment; education and training.

(8) Claude Cheysson — Member: Mediterranean policy; North-South relations.

(9) Alois Pfeiffer — Member: Economic affairs; regional policy; Statistical Office.

(10) Grigoris Varfis — Member: Coordination of structural funds; consumer protection.

(11) Willy De Clercq — Member: External relations and trade policy.

(12) Nicolas Mosar — Member: Energy; Euratom Supply Agency; Office for official publications.

(13) Stanley Clinton Davis — Member: Environment; nuclear safety; transport.

(14) Carlo Ripa di Meana — Member: Institutional questions; citizens' Europe; information and communication policy; cultural affairs; tourism.

(15) Peter Sutherland — Member: Relations with Parliament; competition.

(16) Antonio José Baptista Cardoso e Cunha — Member: Fisheries.

(17) Abel Matutes — Member: Credit, investments and financial instruments; policy on small and medium-sized enterprises.

(18) Emile Noël — Secretary-General

EEC-ASEAN COOPERATION

Mutual benefits from economic integration

In its Number 94, of November-December 1985, The Courier began a series of short reports on Community relations with Third World countries other than those in the ACP Group. This was done with the aim of providing information to the Group and to enable it to mark its position in the complex web of relationships that the Community has created with all developing countries. Thus a first article dealt with the Community and the Gulf States, a following one with relations with Central America. In this issue we are presenting, from the same viewpoint, a look at the EEC's cooperation with another regional grouping which represents vast potential and growing importance in economic, commercial and investment terms. This is ASEAN, the Association of South-East Asian Nations, which comprises Indonesia, Malaysia, the Philippines, Singapore, Thailand, and, since January 1984, Brunei.

The development of EEC-ASEAN relations

With certain exceptions, the Community did not have a traditional special relationship with the developing countries of South-East Asia, in the way it had with the Lomé Convention countries or the countries of the Mediterranean Basin, but a desire was felt in the early 70s to develop closer relations with the area and with the ASEAN group in particular.

At that point the ASEAN side took the initiative in setting up a coordinating committee in Brussels to deal jointly with the Community. This set in motion a dialogue at the political level through exchanges of visits between Commissioners and ASEAN Ministers.



Opening of the Ministerial Conference on Economic Matters at Bangkok in October 1985. From left to right, Claude Cheysson, European Commissioner in charge of North-South Relations, Robert Goebbels, Luxembourg's Foreign Minister and hence President of the European Council of Ministers, Prem Tinsulanonda, Prime Minister of Thailand and Siddhi Savetsila, Thailand's Foreign Minister.

It was after the 1976 Bali Summit, when the ASEAN countries decided to broaden their contacts with the EEC, that the relationship gained momentum. A Community proposal for regular meetings at ministerial level to discuss economic and political questions, was welcomed by the ASEAN countries. The first of these meetings, which took place in Brussels in November 1978, set in motion the negotiation of a broad cooperation agreement between the two groups.

The experience of holding joint ministerial meetings has been repeated four times since 1978. The other meetings took place in Kuala Lumpur in March 1980, following the signing of the Cooperation Agreement, in London in October 1981, in Bangkok in March 1983, in Dublin in November 1984. In Bangkok in 1985, the first ever meeting of Economics Ministers, over and above the regular meetings of Foreign Ministers, took place.

The EEC-ASEAN Cooperation Agreement

This first-ever ministerial meeting on economic matters between Ministers from ASEAN countries and the EEC, including the future Members Portugal and Spain, took place in Bangkok from 17-18 October 1985, and was designed among other things, to provide an opportunity to take stock of co-operation on the completion of the first five years of the ASEAN/EEC Cooperation Agreement.

The Cooperation Agreement is the cornerstone on which EEC-ASEAN relations are based. The two partners have made strenuous efforts to take advantage of the economic integration which has taken place in their respective regions and have as far as possible incorporated this regional aspect into their cooperation.

It was agreed in Bangkok to contin-

ue the Agreement for a further period, and to make efforts to pursue and diversify efforts to strengthen the European presence in the region. And in Europe and South East Asia, the relationship is hailed, in the words of the Singapore Mission to the European Communities, as a "political success story".

The Cooperation Agreement is made up of a number of chapters which establish cooperation in the trade, economic and development areas.

Trade cooperation

Both sides grant each other the benefit of the GATT Most Favoured Nation clause. The Community has made a substantial effort, in the framework of its Generalized System of Preferences, to provide for easier access to the Community market for products of special interest to the ASEAN countries. It has done this both by the extension of the scheme to new products and by a modification of the rules of origin to encourage inter-ASEAN cooperation. These efforts have borne fruit as ASEAN is now the largest beneficiary of the Community's GSP.

Trade promotion

In recent years, the Community has substantially improved and extended

its schemes to promote exports from the ASEAN region.

These schemes include the organization of exporters' trade missions and European buyers' missions to ASEAN, participation in European fairs, on average two workshops every year, the provision of experts in various fields, the offer of trade centres and aid for publicity programmes. The Community has also recently modified its trade promotion policy to encourage regional actions. Accordingly, ECU 700 000 was allocated in 1984 for regional trade promotion actions, on top of the ECU 3.156 m for bilateral activities.

Industrial cooperation

It is in the area of investment and industrial cooperation that the most significant cooperation has so far taken place. Three EEC-ASEAN conferences on industrial cooperation, which bring together industrialists and bankers from both regions, have taken place in Brussels in 1976, Jakarta in 1979 and Kuala Lumpur in 1983. A fourth industrial conference on the food processing sector took place in Manila from 11-13 November 1985. Three seminars on investments in ASEAN countries took place in London, Bonn and Paris in April 1984.

Following contacts between the Chambers of Commerce of both re-

gions, an EEC-ASEAN Business Council has been set up to bring together industrialists from the two regions to encourage the development of reciprocal trade and investment. It met for the first time in Jakarta in December 1983, where it agreed its programme for future work. This includes the publishing of a joint membership directory, the organization of investment seminars, a study on ways to stimulate trade and the examination of possibilities for joint ventures.

Development cooperation

The Community committed itself to support actively, in coordination with the Member States, the development of the ASEAN region and, wherever possible, to bring together financial institutions in the two regions. The Community has provided aid under two main headings:

Financial and technical assistance

In the context of its budget in favour of non-associated countries, the Community has financed development projects in the three ASEAN countries which are eligible for such aid (Indonesia, Thailand and the Philippines). This aid has increased constantly since 1976 and was initially granted bilaterally. Since 1979 it has also been granted for regional projects benefitting the ASEAN countries as a whole.

The Community has allocated, since 1976, some ECU 185 m of aid to projects in the ASEAN region, almost 20% of its available funds under this budgetary heading.

Food aid

Since 1977 the Community has regularly provided food aid to certain ASEAN countries in function of their needs. In this context, Indonesia received 15 000 tonnes of cereals from the Community in 1983.

Joint Cooperation Committee

A Joint Cooperation Committee has been established to promote and keep under review the various cooperation activities and to provide a forum for consultations between the parties.

Trade between the Community and ASEAN

(million ECU)

EEC Imports	1976	1978	1980	1982	1983	1984
Indonesia	637	846	1189	1190	1380	1537
Malaysia	1155	1296	1773	1765	2061	2741
Singapore	513	631	1846	1381	1770	2124
Philippines	468	569	813	998	1091	1311
Thailand	581	890	1232	1740	1569	1915
Brunei	1	1	3	26	46	32
ASEAN	3355	4235	6857	7102	7919	9660
EEC Exports	1976	1978	1980	1982	1983	1984
Indonesia	1070	945	1251	2874	2270	2333
Malaysia	470	729	1035	1297	1644	1951
Singapore	1017	1058	1712	2530	2762	3405
Philippines	384	542	591	777	1103	648
Thailand	340	583	725	876	1267	1294
Brunei	33	39	53	112	219	252
ASEAN	3314	3898	5369	8469	9268	9885

(*) The exchange rate ECU/dollar varies daily as the various EC currencies which make up the ECU vary against the dollar. One ECU was worth US \$ 1.11 in 1976, US \$ 1.27 in 1978 and US \$ 1.39 in 1980, US \$ 0.98 in 1982, US \$ 0.89 in 1983 and US \$ 0.83 in 1984.

Bilateral textile agreements

The Community and five ASEAN countries (all except Brunei), are members of the Multifibres Arrangement and in this framework negotiated, at the end of 1982, bilateral agreements covering the period 1983-86. These agreements provide for clearly defined access for textile products from the ASEAN countries in return for a certain self restraint by their exporters. A unique feature of these agreements is the importance attached to inter-ASEAN states to exchange export quantities among themselves to ensure their fullest utilization. The provisions of these agreements are being autonomously applied by all parties until the agreements are formally concluded.

Bangkok, 1985 – New priorities and directions for ASEAN/EEC cooperation

At Bangkok, the Ministers held an extensive discussion on economic relations between the two regions. Ministers noted that although the EEC remained an important economic partner, its share of ASEAN markets and of foreign investment in the region was not increasing as fast as that of other major industrialized countries.

EEC Ministers recognized the opportunity which the fast-growing

EEC/ASEAN Development Cooperation							
(values: mio ECU)							
	80	81	82	83	84	Total 80-84	%
FTA	25.50	28.40	28.92	55.44	19.20	157.46	79.3
Food Aid	3.57	2.57	2.99	2.30	2.70	14.13	7.1
Trade Promotion	1.51	1.98	2.20	2.35	3.73	11.77	5.9
NGOs	0.66	0.81	1.02	1.01	1.96	5.46	2.8
Training						2.06	1.0
Industrial Cooperation, (ASEAN)						1.89	0.9
Energy, Science and Technology (ASEAN)						5.71	2.9
Total						198.48	100.0

ASEAN region represented for the Community. They agreed to make a major effort to strengthen the European presence in the ASEAN region through a comprehensive and concerted approach.

Investment

Increased European investment in the ASEAN region would be a key element in a long-term strategy to strengthen economic links between the two regions, to promote the transfer of technology and to promote mutual beneficial trade, and they stressed the need to ensure a favourable climate of investment.

It was agreed to set up a high level working party, including representa-

tives of business circles, and particularly banks, to examine investment conditions in the two regions, with a view to identifying any difficulties and to study ways and means of facilitating European investment in the ASEAN countries, especially by small and medium-sized enterprises. The working party should draw up its final report as soon as possible, with at least a preliminary report at its next Joint Co-operation Committee, and its report will be submitted to the Foreign Ministers' meeting, scheduled for late 1986. The European Investment Bank would be requested to play a positive and considerable role on the basis of its financial expertise.

EEC Ministers announced their intention to organize a series of European events in the capitals of the ASEAN countries, with the participation of the private sector, on the theme of "The City in the year 2000", which would demonstrate the potential of European technology to respond to future ASEAN needs, and at the same time would promote increased economic co-operation between the two regions, and increased European investment in ASEAN countries. ASEAN Ministers welcomed this initiative.

Several proposals were discussed to expand cooperation between the two regions, and Ministers agreed to recommend the following for implementation within the framework of the Cooperation Agreement.

Human resource development

The special importance of co-operation in this area, was recognized and EEC Ministers confirmed the great potential which exists in the Community



Under the symbols of cooperation. The speaker is Tengku Razaleigh Hamzah, Minister of Trade and Industry of Malaysia and current Chairman of the ASEAN Economic Ministers.



ASEAN businessmen and -women outside EEC headquarters during an information visit.

for human resource development co-operation with ASEAN and the desirability of strengthening the capacities of ASEAN's own training institutes. They underlined the importance of the following proposals:

- establishment of a computerized data bank of post-graduate and specialized courses available in the Community in Advanced Engineering, New Technology and Business Management;
- a new two-way ASEAN/EEC Executive Exchange Programme providing in-service training for management and supervisory personnel organized in collaboration with the ASEAN/EEC Business Council;
- cooperation between Business Management institutes and continuation of training of ASEAN teachers of Business Management, and the promotion of new courses on Business Management in ASEAN institutes;
- to organize training for ground staff in the field of civil aviation, air traffic control, airport management, using the Community's own advanced training facilities at Eurocontrol and international airports in the Community;
- using the special experience of the European Institute for Public Administration, to organize a series of courses in the subjects of inter-governmental cooperation for senior officials in ASEAN countries.

Science and technology

In the field of Science and Technology, where micro-electronics, biotechnology and marine science attracted special interest, Ministers saw considerable potential for linking research activities in existing institutes in the two regions with a view to exchanging research information and research personnel, sharing facilities and cooperating on research projects. Networks of linked research institutes could be set up in fields of mutual interest. As well as continuing its direct support of regional research projects in ASEAN, the Community would promote a pilot project, a network of research institutes in the field of biotechnology.

Energy co-operation

Ministers agreed to increase co-operation in this area of mutual interest. To this end, they agreed to study the creation of an ASEAN/EEC Centre for Energy Management Training and Research. This would facilitate improved information, training and exchange of expertise, and joint research on energy management.

Tourism

Following a suggestion by ASEAN Ministers, it was agreed that co-operation in the field of tourism should be

included, as a new activity in the framework of the Cooperation Agreement, particularly in order to promote ASEAN as a tourist region. Ministers discussed the serious problems caused by drug abuse and agreed that relevant experience in the Community, in particular regarding treatment and rehabilitation could be made available to ASEAN via training programmes and meetings between experts, and action in other fields, such as crop substitution, should also be considered.

Trade relations

Trade between the Community and ASEAN has shown remarkable growth since 1976. The Community's imports from ASEAN went up 141% while her exports went up 118%. For most of this period the Community has had a trade deficit with ASEAN though it has registered a surplus since 1981.

ASEAN's main exports to the Community are lumber, electrical machinery, manioc, natural rubber, clothing, coffee, textiles. These seven products account for almost two-thirds of ASEAN exports to the EEC. ASEAN is an important supplier of raw materials for the Community, being a principal supplier for tropical hardwood, natural rubber, palm oil and coconuts. Community exports to ASEAN consist mainly of machinery, transport equipment and chemicals. ○ T.G.

Statistical training in Africa

By Stefan FROWEIN (*)

Statistical Training Programme for Africa (STPA)

African statisticians are trained either by the statistical departments or sections of universities or by separate statistical training centres. In the English-speaking African countries, such training is mainly provided by the university sector, whereas the French-speaking countries make more use of specialized statistical training centres. Most of these centres try to coordinate their efforts to a certain extent. These aspirations were the origin of the STPA. In 1977 the United Nations Economic Commission for Africa (ECA), whose Head Office is in Addis Ababa, launched the Statistical Training Programme for Africa in collaboration with the UNDP. The decision to organize this programme was taken by the Conference of African Statisticians, and the main aim is to improve statistical training in Africa with a view to ensuring that the continent will be self-sufficient in this respect at the end of a ten-year period.

STPA centres

The participants in this programme are 14 African regional centres and the CESD in Paris, together with five non-African institutions in an associate capacity (see tables and map). The programme is coordinated by the ECA.

Study of statistical training needs in Africa

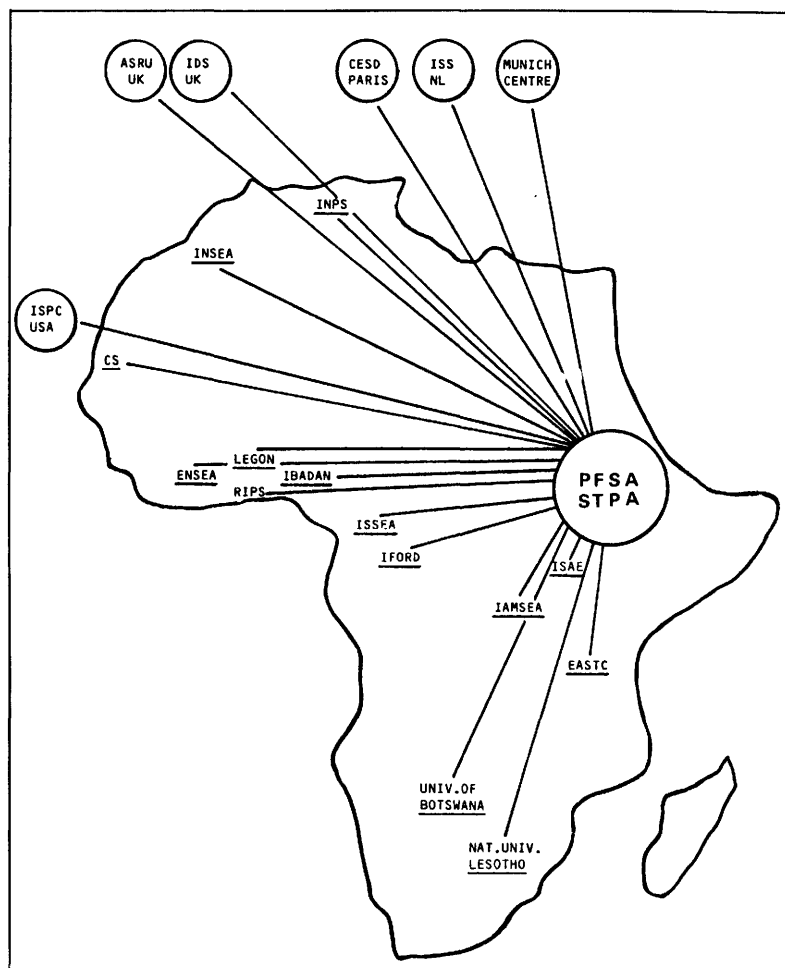
In 1980 the ACP Ministers asked the Community for aid from the EDF to continue the programme, and in 1982-83 Eurostat was given the task of carrying out a study of the training needs of African statisticians. Other institutions participating in this study, at different levels, included the Economic Commission for Africa, the ACP Secretariat, the CESD and the various French, British and German departments responsible for financing development aid projects. Eurostat provided one of the authors of the final report.

The conclusions and recommendations of this study indicated that the assistance provided by the EDF could be channelled into a series of specific operations in the various centres participating in the STPA. These are monitored and coordinated by Eurostat.

Operations in progress

To improve the efficiency of statistical training in the English-speaking centres participating in the STPA, cooperation is being established or extended firstly in the form of assistance with the training of programmers in collaboration with the Institute of Statisticians (which organizes examinations leading to the award of diplomas recognized in the majority of English-speaking countries) and secondly by means of twinning arrangements with European universities.

(*) Administrator in the "Analyses and Development" Division of Eurostat.



The Munich Centre of the Karl Duisberg Gesellschaft is responsible for organizing a series of travelling seminars on food policy, to be held in various English- and French-speaking African countries, with the aim of improving relations between producers and users of food statistics in the countries concerned.

The same Centre has been given the task of examining the scope for using mini- and micro-computers in the various statistical training centres in Africa. The conclusions of this study and of similar investigations carried out by the Federal Republic of Germany, France and the United Kingdom, together with the recommendations of the Economic Commission for Africa on the content of computer training for statisticians in the STPA context, have produced a certain consensus, among the organizations concerned, with regard to standards and norms for hardware and software. There are also plans for continual exchanges of information between the organizations concerned on the new procedures and techniques that are put into practice.

In the same context, the EDF supports the Africanization of statistical training staff, so as to permit the gradual reduction of the statistical centres' dependence on European staff.

The French-speaking centres in Abidjan, Yaoundé and Kigali recruit their trainees by means of a common examination organized by the CESD. This outstanding example of regional cooperation in the coordination of statistical training programmes is also supported by EDF grants for organizing the examinations and for producing printed material to help candidates prepare for them.

The training of economic statisticians ("ingénieurs statisticiens économistes") is currently carried out in Paris by the CESD. Some of the EDF aid for the STPA is to be used

for preparing for and organizing the transfer of this training function to at least two African centres within the next two or three years.

The EDF is also contributing to the setting up, in a number of countries, of national schemes for the training of middle-ranking managerial staff in this field.

Future work programme of the STPA

Much remains to be done. Current priorities include

development of the use of micro-computers in the African training centres and of training programmes geared to the needs of Portuguese-speaking African countries.

Additional information

Further information, particularly with regard to the content of the training programmes or the enrolment procedures, may obtained by writing to EUROSTAT, Division C-3, B.P. 1907, L-Luxembourg. o

S.F.

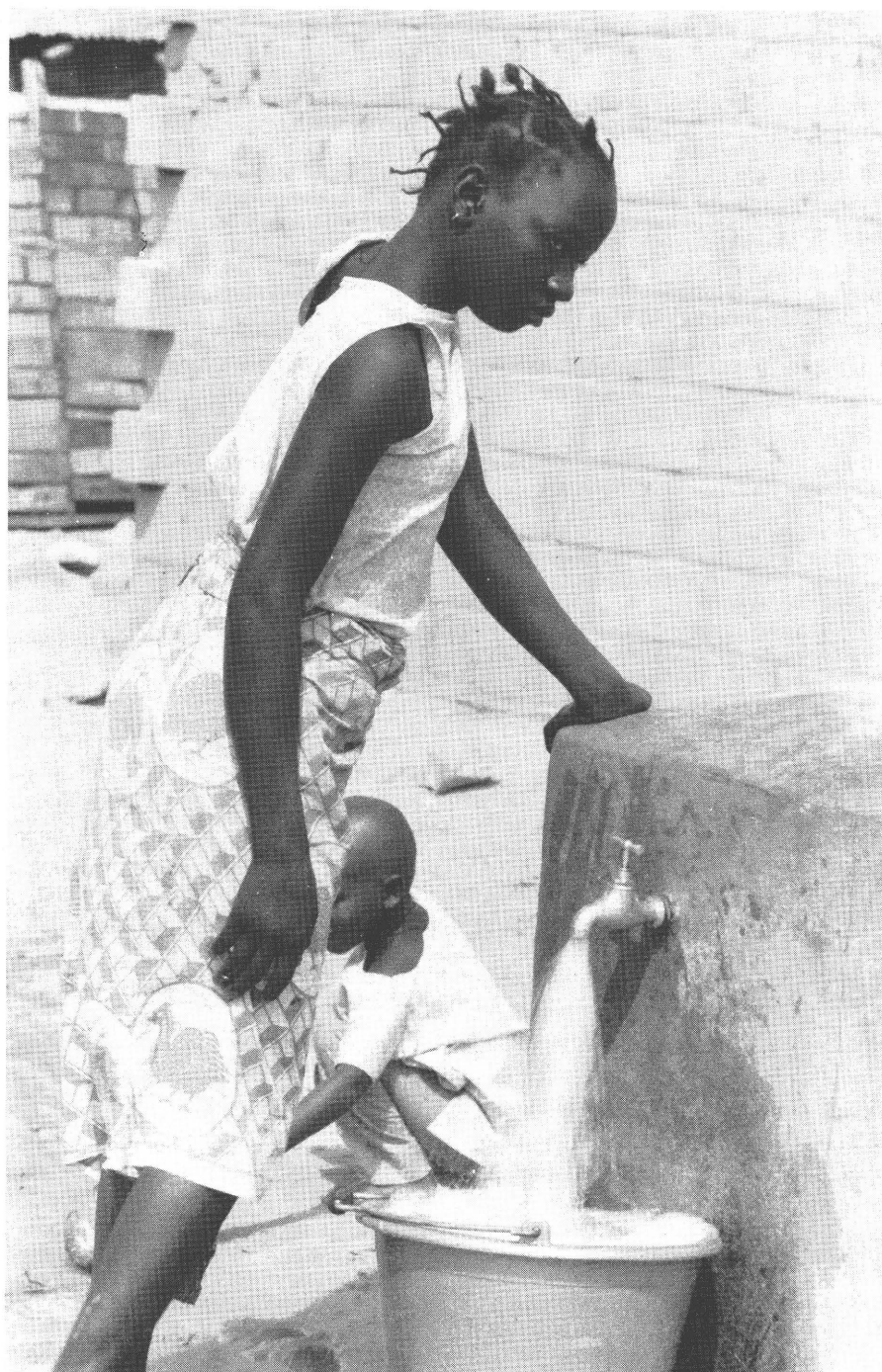
ENGLISH SPEAKING CENTRES

Name and address of the centre	Teaching programmes	Admission requirements	Duration of the course
Department of Statistics University College of Botswana P.O. Box 22 Gaborone (Botswana)	a) Certificate in statistics b) Diploma in statistics c) Degree in statistics	Cambridge Overseas School Certificate or equivalent Certificate in Statistics or equivalent Cambridge Overseas School Certificate in the First or Second Division with a credit in English and Mathematics	1 year 2 years 4 years
Department of Statistics Institute of Statistical, Social and Economic Research (ISSER) University of Ghana P.O. BOX 115 Legon (Ghana)	a) B.A./B.Sc Degree in statistics b) Graduate Diploma (M.Sc.) c) Certificate (ISSER) d) Diploma (ISSER)	Passes in five subjects at the General Certificate of Education (GCE) or equivalent, of which three at A-Level or equivalent A good first degree and good mathematical background. A second class upper degree and at least two years of University Mathematics West African School Certificate Examination with credits in English and Mathematics or GCE O-level with passes in English and Mathematics or equivalent practical experience or entrance examination Good pass in the certificate course or approved equivalent	3 years 2 years 2 years 1 year
Regional Institute for Population Studies (RIPS) University of Ghana P.O. Box 96, Legon (Ghana)	a) Graduate Diploma in Population Studies b) M.A. Degree in Population Studies c) Ph. D. Degree in Population Studies	Bachelor's Degree in Natural, Social or Earth Sciences or any related subject for the Graduate Diploma Bachelor's Degree + Graduate Diploma in Population Studies or equivalent Master's Degree in Population Studies or equivalent	1 year 1 year 1 year
Department of Statistics National University of Lesotho P.O. ROMA 160 via Maseru, Lesotho	a) Certificate in Statistics b) Degree Programme (B.A.)	Cambridge Overseas School Certificate or equivalent Cambridge Overseas School Certificate in the 1st or 2nd division with a credit in English	2 years 4 years
Department of Statistics University of Ibadan Ibadan (Nigeria)	a) Professional Diploma in Statistics b) B.Sc. Programme c) Postgraduate Diploma in Statistics d) M.Sc. Programme e) M. Phil. Programme f) Ph.D. Programme	— West African School Certificate with credit in English, Mathematics and three other subjects (O-Level), four other subjects if English is only a pass and not a credit — Certificate of the Statistics Training course of the Federal Office Statistics Training School or equivalent — Concessional entrance Examination — General Certificate of Education A-level or equivalent — University of Ibadan Professional Diploma in Statistics — Degree (B.A.) + Mathematics not below A-Level GCE — Graduate of the University of Ibadan or other Universities recognized as equivalent — 50% Level of Pass in the course examinations for the M.Sc. Degree programme in Statistics of the University of Ibadan — Masters Degree in Statistics — 60% Level of Pass in the course examinations for the M.Sc. Degree programme in Statistics of University of Ibadan — Candidates for the M. Phil degree with Senate permission to upgrade — Holders of M. Phil. degree or equivalent	2 years 3 years 1 session 1 year 1 year 1 year
Eastern Africa Statistical Training Centre (EASTC) University of Dar-es-Salaam P.O. Box 35103 Dar-es-Salaam Tanzania	a) Certificate course (middle level) b) Diploma course (intermediate level) c) Short courses	— O-Level Certificate with passes in Mathematics and English — One years working experience in Statistical assignment — Entrance examination — Centre's Certificate or recognized equivalent — Entrance examination — Middle or lower level Statistical personnel without formal training	10 months 10 months 8 weeks
Institute of Statistics and Applied Economics (ISAE) Makerere University P.O. Box 7062 Kampala, Uganda	a) Undergraduate Professional (B. Stat.) programme b) Undergraduate B.Sc. programme c) Proposed Diploma in Statistics (Dipl. Stat.) and Master of Statistics (M. Stat.)	— A-Levels with principal pass in Mathematics — Good pass at Intermediate professional level in Statistics — Entrance Examination — Specific Entrance requirements of the University — Specific Entrance requirements of the University	3 years 3 years 9 months

FRENCH SPEAKING CENTRES

Name and address of the centre	Teaching programmes	Admission requirements	Duration of the course
Institut National de la Planification et de la Statistique (INPS) 11, Chemin Doudou Mokhtar BEN AKNOUN, ALGER	a) Technicien supérieur	— Baccalauréat (option mathématiques, sciences ou économie) ou diplômes équivalents. Concours	3 années
	b) Ingénieur d'Etat 3 ^e /4 ^e année — analystes de l'économie — ingénieurs d'application de la statistique	— Baccalauréat (option mathématiques) ou diplômes équivalents. Concours	5 années
	c) Maîtrise	— Ingénieurs d'application de la statistique de l'INPS — Analystes de l'économie de l'INPS — Licence en sciences économiques — Licence d'études supérieures en mathématiques — Ingénieurs d'Etat — Diplômes équivalents après au moins 4 ans d'études supérieures. Admission définitive après 3 concours en mathématique, statistique et économie	3 années
Institut Sous-Régional de Statistique et d'Economie Appliquée (ISSEA) B.P. 294 - YAOUNDE Cameroun	a) Agent technique de la statistique b) Adjoint technique de la statistique c) Ingénieur d'application de la statistique	— BEPC (quatre années d'études secondaires) — Pré-baccalauréat — Baccalauréat C Concours	9 mois 2 années 3 années
Institut de Formation et de Recherche Démographiques (IFORD) B.P. 1556 YAOUNDE Cameroun	a) Diplôme d'études démographiques (DED)	— Ingénieur des travaux statistiques (ITS) — Licence en géographie, sociologie, économie ou mathématiques — Diplômes équivalents Concours	2 années
	b) Cours pratique d'introduction en recherche	— Diplôme d'études démographiques	1 année
	c) Cours intensif d'introduction en démographie et en statistique	— Agents et Adjointes techniques de la statistique (diplôme/certificat)	8 semaines max.
	d) Cours de recyclage	— Démographes africains	4 semaines
Ecole Nationale Supérieure de Statistique et d'Economie Appliquée (ENSEA) 08 B.P. 3 ABIDJAN 08 Côte d'Ivoire	a) Ingénieur des travaux statistiques b) Adjoint technique de la statistique c) Agent technique	— Baccalauréat (de préférence option « sciences ») — Diplômes/qualifications équivalents Admission par concours directe (1 ^{re} année) Concours direct ou professionnel (année préparatoire) — Pré-baccalauréat (option « Sciences ») 5 ans d'enseignement secondaire	3 années ou 4 années (+ année prép.) 2 années 1 année
Centre Européen de Formation de Statisticiens Economistes des Pays en Voie de Développement (CESD) 3, ave Pierre Larousse 92240 - MALAKOFF - France	a) Ingénieur statisticien économiste (ISE)	— Etudes supérieures (en moyenne 4 années) en mathématiques ou économie (ITS) Concours	3 années
Institut National de Statistique et d'Economie Appliquée (INSEA) B.P. 6217 RABAT Maroc	a) Ingénieur statisticien économiste (ISE)	— Diplôme d'ingénieur d'application de la statistique — Licence en économie ou mathématiques — Diplôme équivalent avec au moins 3 ans d'expérience professionnelle Concours	2 années
	b) Ingénieur d'application de la statistique	— Baccalauréat (option mathématiques ou sciences) — Diplômes équivalents Concours	4 années (depuis 82/83)
	c) Adjoint technique de la statistique (ATS)	— 7 années d'enseignement secondaire en mathématiques, sciences ou économie Concours	2 années
	d) Ingénieur analyste informaticien (IAI)	— Baccalauréat (option sciences ou économie) Concours	4 années (depuis 82/83)
	e) Adjoint technique programmeur	— 7 années d'enseignement secondaire en sciences ou économie Concours	2 années (depuis 82/83)
Institut Africain et Mauricien de Statistique et d'Economie Appliquée (IAMSEA) B.P. 1109 - KIGALI, Rwanda	a) Ingénieur des travaux statistiques (ITS)	— Baccalauréat C, D ou E ou diplômes équivalents — Candidats admis au baccalauréat C, D ou E — Diplôme d'adjoint technique de la statistique Concours exclusivement	3 années 4 années (1 année prép.)
Collège Statistique (attaché à l'Ecole Nationale d'Economie Appliquée ENEA) Route de Quakam B.P. 5084 DAKAR, Sénégal	a) Ingénieur des travaux statistiques (ITS)	— Baccalauréat (options scientifiques) Concours direct	3 années
	b) Agent technique de la statistique	— Concours pour fonctionnaires du gouvernement avec au moins 4 années d'expérience professionnelle — BEPC ou diplômes équivalents Concours direct — Concours professionnel pour fonctionnaires du gouvernement avec au moins 4 années d'expérience professionnelle	3 années

DRINKING WATER



WHO

A BASIC NECESSITY OF LIFE



WHO

The blue planet. That is what they call the earth because of the colour of the water that covers three fifths of its surface. Yet only 3% of this water is the absolutely vital drinking water that man can use. He needs water for his biological needs, for his personal hygiene, to irrigate his land and to produce his energy. Over the years, he has learned to master this element with its unwelcome manifestations, the floods and the freak tides, and what can be long absences that bring drought and deserts in their wake. And he is familiar with the links in the never-ending cloud-rain-evaporation-cloud chain and all the upheavals that pollution can bring to it.

But water control is an ill-distributed thing and once again it is the developing countries which are the worst off. Although turning the tap on is a simple gesture that people in the developed world do without thinking dozens of times a day, supplying water to Third World families is still an arduous task that takes women—and the job usually falls to them—several hours' hard labour every day. So the amount of water consumed varies enormously and someone in the Community may use 10 or 15 times more than someone in an ACP country in the Sahel. Individual domestic needs are an estimated 20 litres per day, yet many people, particularly in the rural areas of the world, do not get this amount, although the daily per capita con-

sumption in France, say, has been put at 200 litres. The quality of water also varies widely and while it is good in the developed countries, it can be brackish and stagnant in the Third World.

This, and the firm conviction that proper, regular supplies of drinking water are one of the most important aspects of the well-being of the people and the economic development of their countries, was why the UN announced that the 1980's would be a water and drainage decade. The two are inseparable, of course, as there can be no drinking water in a badly drained environment.

This dossier concentrates on the domestic use of water. It looks at the progress that has been made with water, in particular in the ACP countries, since the decade was announced. It sets out a range of non-conventional resources for countries that are short and it analyses the underground water potential of the desert regions.

It points up the correlation between access to drinking water and sanitary improvements.

Lastly, the dossier describes what the Community is doing to help with water supplies and drainage, a sector which has already received considerable financing in the past and should be one of the priorities of ACP-EEC cooperation under Lomé III. ◊

A.T.

WATER DECADE



UNCHR - Bertoni

Limited results at the half-way mark

No-one can live decently without drinking water and sanitation. By making the eighties international drinking water and drainage decade, the UN was in fact calling for a fundamental human right to be granted—but was it heard?

Yet another disappointed hope? Could be. For, more than five years after its 1981 launch, this drinking water and drainage decade seems unlikely to reach its goal of giving 80% of rural- and 23% of town-dwellers of the Third World the drinking water and sanitary facilities they currently lack. Was this too ambitious an idea, as some people claimed at the time? The UN General Assembly was swimming with the tide by proclaiming the decade in application of the recommendations of Habitat 1976 and the water conference of Mar del Plata (1977). That, remember, was the time when the most generous of development ideas were presented as being aims that could be achieved and when

slogans of the "Health and education for all in the year 2000" were everywhere—and seemed believable.

Today, just into the second half of the decade, we still have a long way to go. The UN Economic and Social Committee's report last year showed that only about 345 million more people in 120 developing countries got drinking water in the first three years of the decade. The figures for sanitary facilities in the same period were 140 million in town and country areas. These are modest results, as there are still more than 1 200 million people without drinking water and another 2 billion without decent sanitation in the Third World, but they are progress

nonetheless, as this is more than was done throughout the whole of the previous decade.

Variation

In its mid-decade report, the UN analyses one or two of the reasons for these limited results. First of all there is the world recession, one of the worst for years, which coincided with the launching of the decade. It hit developed and developing countries alike, making internal and external contributions to the financing of many projects more difficult. Then there was the growth of the population of the Third World, particularly in the towns, something which tends to increase needs and partially to neutralize any progress notched up. And lastly, in the specific case of Africa, there are the huge food shortfalls which drought and economic problems forced on many countries. These acute food shortages often led people to concen-

trate on emergencies. It is easy to see why.

But the half-way results are far from being negative. They vary considerably from one country to another and, although it is the global statistics that appear in reports, there are strong variations behind them. And of course this quantitative approach will not give a proper idea of exactly what results were achieved. G. Arthur Brown (UNDP Associate Administrator and Chairman of the committee coordinating the decade programmes) says that the developing countries also put priority on quality, on building up national competence and on using cheap appropriate technology. They want the poor to be able to use these services and, last but not least, the populations concerned to be directly involved in planning and managing water and drainage projects.

A closer look at the first results of the decade from the point of view of these few criteria will give a better grasp of their scope and an idea of what remains to be done.

Efficiency

The first thing to check when gauging the effect of the decade is whether the developing countries have actually

made water and drainage one of their priorities and whether the goals are part of an overall programme. In 1981, only nine countries had done this but by the end of 1983, the figure was 59 (including 22 ACPs) and 31 others (including 18 ACPs) said that their plans were under way. It may be obvious to say so, but these programmes do reflect the countries' commitment and they are a useful yardstick when it comes to highlighting aims in the different sectors. It is also worth noting that 22 of the countries that already have a programme have found they needed to lower their sights as the original aims were too ambitious.

A second indication of the effectiveness of the decade is the level of financing channelled into the schemes. The percentages of national budgets allocated to water and drainage have remained constant (at an average of 1.6% since the beginning of the decade). But, as the UN report emphasizes, the figure is up beyond the 10% mark in certain countries (Djibouti, Ethiopia, Lesotho, Malawi, Uganda and Zambia, for example). Others, Trinidad & Tobago and Sudan, say, have greatly increased the amounts earmarked for water and drainage since the start of the eighties. External financing—to the extent that we can put an exact figure

on the amounts channelled into this type of project—is thought to have stayed at around \$ 2 billion p.a.

This is still a long way from the \$ 30 billion p.a. financing (internal and external sources combined) that is required to meet the proposed targets. The most commonly quoted figure is a mere \$ 7 billion p.a. invested and there is no doubt that, if more progress is to be made in the matter of water supplies and drainage, then it is vital to make a substantial increase (as the UN has it) in both domestic financing and external assistance.

Other criteria are more difficult to evaluate. How can we see what progress has been made with training the labour force in the water and drainage sector when such training is often given (fortunately) outside the conventional educational structures? There is a crying need for qualified people to design, run and maintain projects over many of the developing countries.

Information and mobilization

It is also hard to see just how much better population involvement in the planning and management of these new facilities has become, especially in rural areas. Yet it is vital to the success of the decade. There are plenty of examples of successful population in-

"... only 345 million more people in 120 developing countries got drinking water in the first three years of the decade"



Water/drainage cover, by region, 1980 and 1983
(per '000 000 inhabitants)

Region	Population		Population covered							
			Water supplies				Drainage			
			1980		1983		1980		1983	
	1980	1983	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%
Africa										
urban	135	160	89	66	91	57	73	54	88	55
rural	334	356	73	22	103	29	67	20	64	18
Total	469	516	162	34	194	38	140	29	152	29
Asia & Pacific (1)										
urban	428	493	278	65	330	67	175	41	237	48
rural	1 064	1 109	277	26	488	44	117	11	100	9
Total	1 492	1 602	555	37	818	51	292	29	337	21
Latin America										
urban	234	254	183	78	215	85	131	56	203	80
rural	124	126	52	42	62	49	25	20	25	20
Total	358	380	235	66	277	73	156	44	228	60
West Asia										
urban	27	30	25	94	29	95	22	80	28	93
rural	21	24	9	41	12	50	4	18	6	25
Total	48	54	34	69	41	76	26	51	34	63
General										
urban	824	937	575	70	665	71	401	49	556	59
rural	1 543	1 615	411	27	665	41	213	14	195	12
Total	2 367	2 552	986	42	1 330	52	614	26	751	29

Sources: 1980: Secretary-General's report on the decade (A/35/367); 1983: WHO surveys.
(1) Excluding China.

involvement in setting up and maintaining manual pumps, particularly in Kenya, Malawi, Mali and Burkina Faso (see *Courier* no. 95, p. 101). But it takes more than one swallow to make a hot summer and there is still a lot of ground to cover, particularly when it comes to involving the womenfolk. One thing that is always considered to be a woman's job is fetching her family's water and looking after their hygiene and if she is to do this job properly, she must be able to attend training programmes in the same way as men. She must be able to master the technologies, which must be extremely simple, better adapted and less expensive.

One of the drives during the decade has been to promote appropriate technology—such things as hand pumps, of which the developing countries are thought to need something like 5-7 million. Research into producing new pumps that are easy for the villagers to maintain has been run in a number of countries and simple latrines have been experimented within the rural areas and around the towns. The traditional model found across Africa south of the Sahara has been improved by the addition of ventilation pipes and the new-style latrine is already popular in Botswana, Ghana, Nigeria and Tanzania. It now has to catch on elsewhere.

So progress there certainly is, half-way through the decade, and not negligible progress either. But there are still 1 200 million people—almost three times as many as those who benefit from decade programmes—without drinking water within easy reach and almost 1.9 billion—virtually 15 times the number to benefit from the programmes—without adequate sanitary facilities. It would be wrong to discount the possibility of the international community sitting up and making a greater effort for the decade, but it seems a fairly remote one. So it looks as if those who thought mankind's worst water and drainage problems would be solved by 1990 will be disappointed.

But the real aim of the decade was perhaps to make the people and their governments aware of the situation and to get everyone doing something about it. This it has not yet failed to do. ○

A.T.



Better use of underground water resources

By J.J. COLLIN(*)

Drinking water for all is one of the main aims of the UN Decade. But in some parts of the world, where drought is relentless, in the Sahel where the situation is virtually an endemic one, it is the quantity of water rather than its quality that tends to be the most important thing. However, although there is little surface water in the Sahel, underground reserves are considerable.

Drought is a more or less abnormal pathological state. Unlike aridity, it is not an environmental characteristic compared to average conditions. The disasters which have hit the Sahel since around 1900 are natural phenomena which make up what tend to be multiannual cycles along with rainy years and ordinary years.

We cannot yet say whether there is any real regularity about this, and the "normal" figures established over only a few decades are inadequate when it comes to defining trends in the climate.

Imagine that you are looking at the annual rainfall graph through a square cut out of a piece of paper. Take a step in time, 10 years or so, and you will be struck by the fact that some sequences are excessively optimistic and others excessively pessimistic in relation to the average (or normal).

Increasing media exposure, often tinged with what is sometimes unhealthy catastrophism (drought as alibi?) has put the accent on the dips in the above diagram on the next page.

(*) Department of Water, BRGM (Bureau de Recherche Géologique et Minière), Orléans, France.

The trend towards aridity

According to a number of scientific observations, it is more than probable that the climate in the Sahel zone is still moving towards aridity.

The palaeontological (the Ténéré hippopotamus), archaeological (cave paintings in the Aïr) and historical (traces of civilization, farming, dried up wells that have been deepened several times) evidence points to a climate of gradually increasing aridity.

Yet this development, which has been going on for thousands of years, is not happening regularly. Geologists and palaeontologists who specialize in civilizations of the quaternary period have even defined the way in which major rainy and arid periods alternate.

There again, if we look at a diagram of the climatic trends through too small a window, we shall get either a pessimistic or an optimistic impression.

Desertification

Men, even when scientifically trained and well informed, are more influenced by visual impressions than

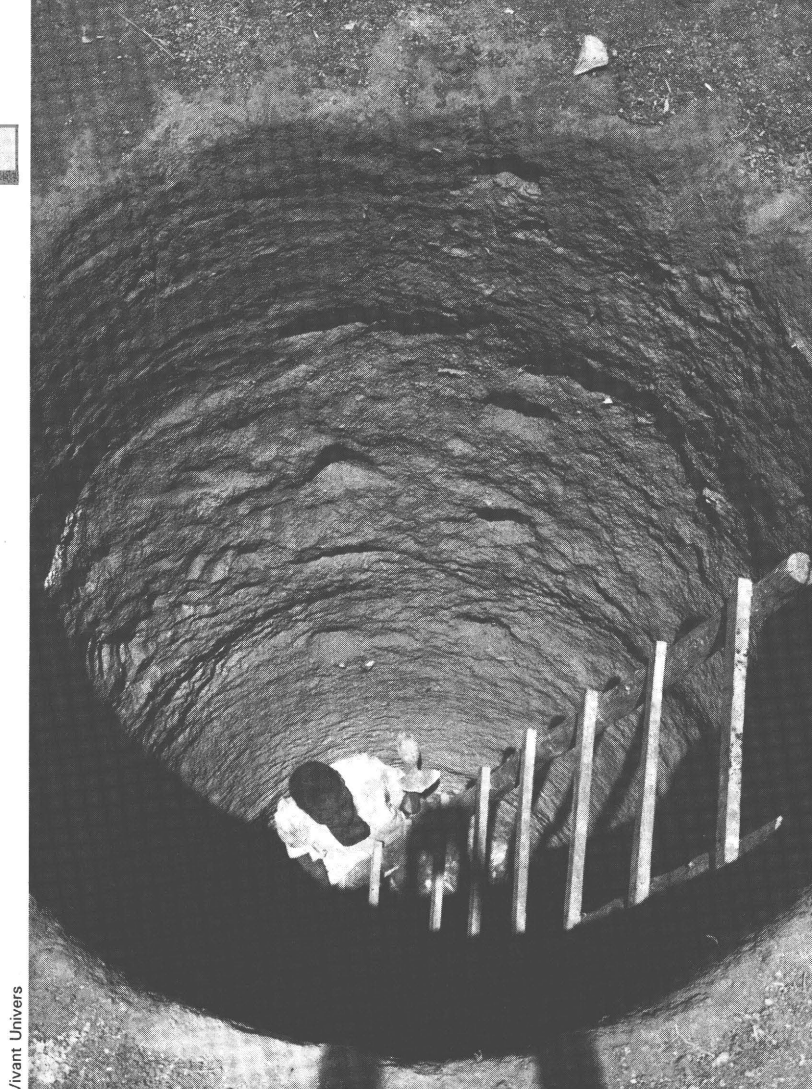
by the examination of scanty statistics on climate.

The deterioration of the vegetation, the mineralization of the landscape and the lamentable effect all this has on the cattle and the people who live there, are of course the most commonly quoted effects of desertification. Yet desertification is often hastily equated with drought alone. We are perfectly well aware that desertification is the result of excessive human pressure on the environment. Drought makes it worse, of course, but the two disasters are not totally related or inter-dependent.

Amalgamation

Being developments that take thousands of years to occur, droughts that are unevenly spread between normal periods and our experiences of desertification are often lumped together to become the basis for over-pessimistic conclusions and even grounds for giving up.

Anyone who wants to give up only has to say that the recent drought is just part of a movement that will take aeons to accomplish... and that the



Vivante Univers

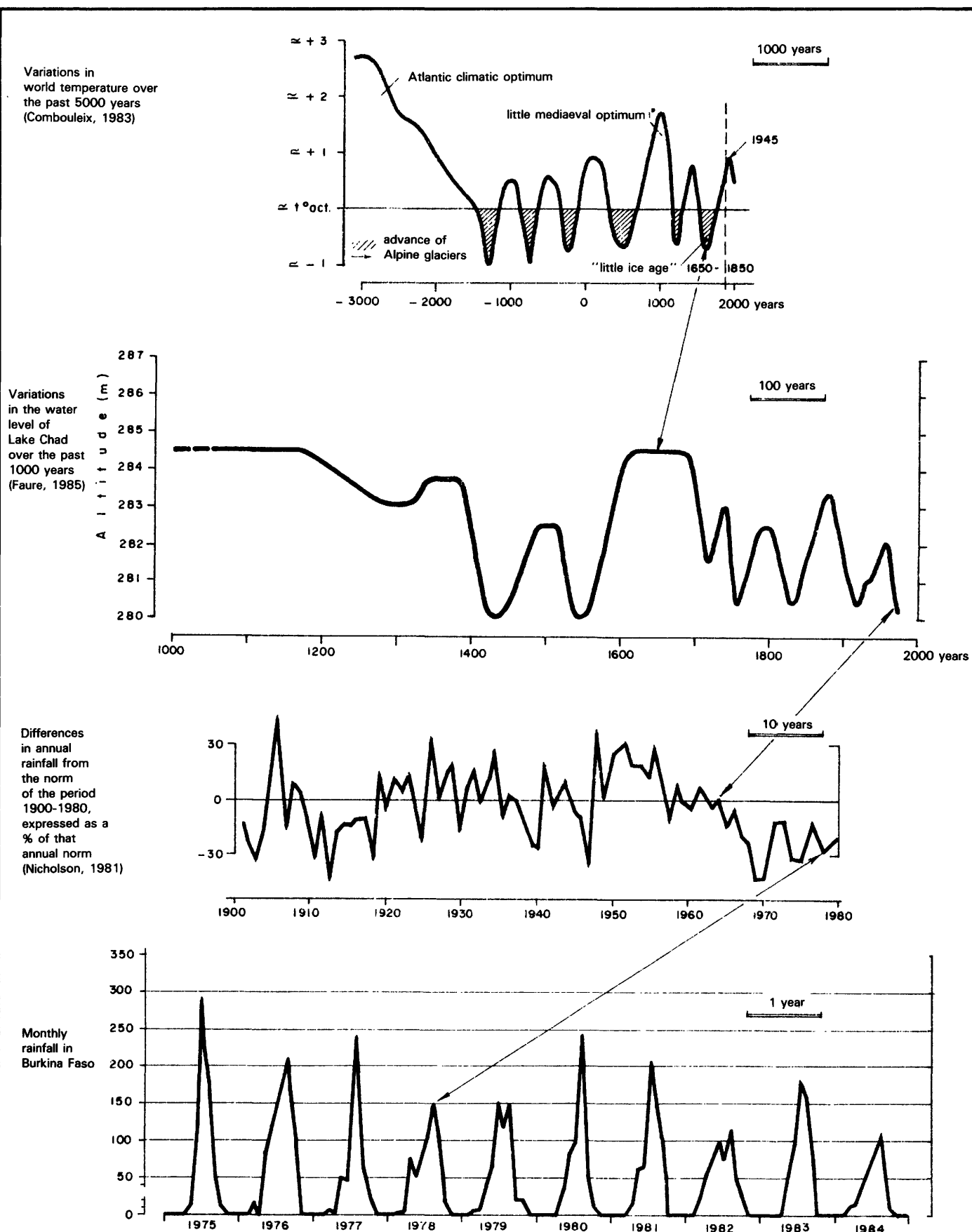


Figure 1. — At each “step in time”, ranging from the year to the millennium, periods above the norm are followed by periods below the norm. Indeed, it is the cumulation of these “peaks and troughs” which provides our notions of what is “normal”; there are no current signs that today’s phenomena are of a fundamentally different nature (except desertification, which is caused by other things).

desertification we can see is the flagrant manifestation and proof of the well-foundedness of this argument.

However, the hopeful need only move the window on our diagrams slightly, put drought and normal periods in perspective and look at all the segments on the diagram so the favourable and unfavourable periods observed on a 10-year basis combine with the thousand-year trends to form a carrier wave and a more moderate picture.

There is nothing in the state of the art of our forecasting techniques to suggest that there will be more favourable than unfavourable periods, as we know them now, for many centuries to come.

At a human level, and for many generations to come, the *status quo* should be maintained, with some of the, alas, fairly sharp fluctuation that is the unfortunate characteristic of the Sahelian climate.

Reasons for hope

If practical proof, based on common sense, is needed, the heavy rainfall of 1985 is there for all to see—although it is no reason to be over-optimistic.

From rain to water resources

The very largely multiannual variation in rainfall ($\pm 30\%$ above or below average) combines with the highly concentrated nature of precipitation over a few months. The falls themselves are of the heavy shower variety and may be separated by several weeks of dry weather within the rainy season (or winter).

These special conditions have produced a special kind of vegetation and a very special kind of water system. As a rule, grasses have a very short cycle, trees have very deep roots and surface waterways not fed from a humid tropical area generally dry up.

The shortcomings that occur by the week in the rainy season, the eight or nine months of dry season every year and the droughts that may last several years are behind the rainfed methods of growing which, although appropriate, can sometimes be a problem (when, say, seeds die during a mini-drought at the beginning of the rainy season).

The only way of coping with this is to control water resources and regularize a flow which is more wanting in structure than quantity. Ouagadougou has as much rain as the Beauce region of France, for example, but how differently it is spread!

Organizing water supplies

It is certainly possible to organize surface water resources, although regularization tends to mean creating over-large capacities which are expensive, as good dam sites are rare and evaporation (at least 4 m p.a.) depletes bodies of water that are not deep enough. Small hill dams, lakes etc. are obviously the most accessible form of technology and the financial and technical means are within the scope of the villagers (dams are being built in Burkina Faso at the moment).

There is a serious drawback to these developments when it comes to drinking water, as they are contaminated with bacteria and parasite larvae and 70% of recorded illnesses and 50% of infant deaths can apparently be put down to the water. Hydraulic engineering (channels) has introduced diseases to regions where they were hitherto unknown.

The sparse nature of the permanent hydrographical network and the problems of controlling surface water suggest that we should look at underground water supplies.

Underground water in sub-Saharan Africa

We bring forth water from the sky in moderation.

We let it stay in the earth.

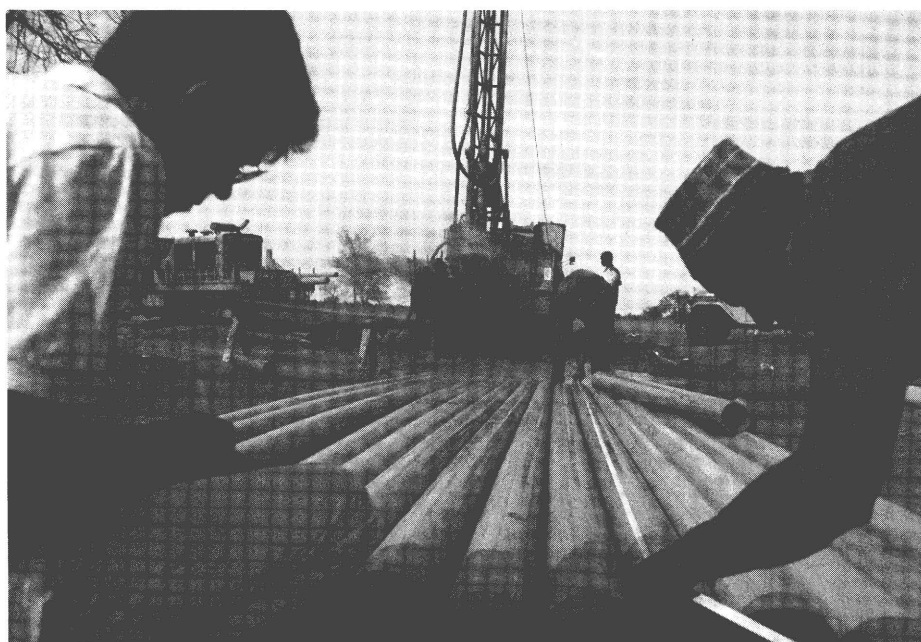
We could make it disappear if this were our wish.

The Koran.

Runoff, which feeds the water table, is gross rainfall minus evaporation, plant transpiration and surface runoff. In very contrasted climates, it would therefore be reasonable to assume that there are water tables that get replenished beneath hyper-arid land.

In the major part of the Sahel and Sudano-Sahel regions, the rock is not terribly conducive to easy and intensive exploitation of underground water. There is very little limestone of the karstified type which gives the fine springs of the Mediterranean basin and very little rough river alluvion to dig wells.

There are two types of aquifers—sand and porous of the major sedimentary basins and massive fissured rock. The former make good reservoirs, obviously. They are vast and water will sometimes bubble out of them without being pumped, but they are often deeply embedded and so boreholes several hundred metres deep can be required. They are beyond the financial reach of small rural com-



Preparation of tubes for drilling

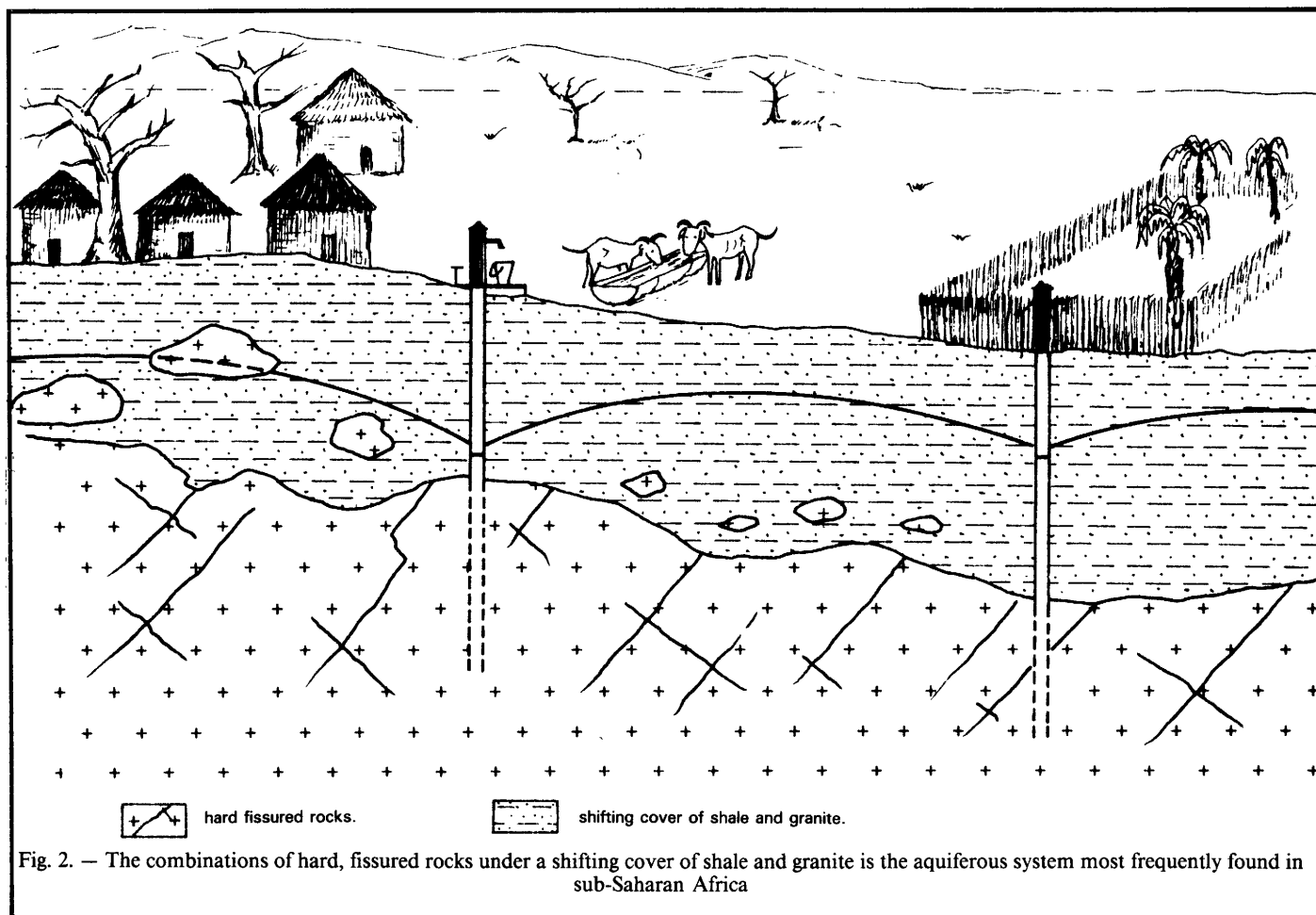


Fig. 2. — The combinations of hard, fissured rocks under a shifting cover of shale and granite is the aquiferous system most frequently found in sub-Saharan Africa

munities. In all but one or two cases, these huge sedimentary reservoirs coincide with the most desert-like areas of the countries in question (Chad, Mali, Niger and Sudan). Because local need is minimal, they tend not to be exploited and they are of limited interest in that the resources here are almost all fossils.

These exhaustible resources of the desert countries could be used in a global water economy of the kind envisaged by the Arab countries and the North African nations. In view of their nature and situation, they are of only local or limited interest when it comes to solving the problems of the ACP countries south of the Sahara.

Fissured massive rock and its changing cover

That leaves the massive rock formations whose value became obvious recently when boring techniques were being perfected and the laws governing the most highly fissured areas were discovered. Most of tropical Africa is made up of rock of this kind.

Our better understanding of this is directly derived from the many schemes (70 000 plus in western Africa) that have been carried out. The results of the great village water supply campaigns means that we now have the material for a typology of rocks displaying relative favourability—using, say, success as a percentage of target flow, according to type of rock. This job would of course have to be computerized.

The different aquifers are currently being mapped with Commission financing. The idea is to give development leaders the knowledge they need to adapt projects to aquifer potential.

The shale and granite formations of the African shield weathered over a very long period, to the point where what can sometimes be dozens of metres of weathered, residual rock covers the hard rock.

These terrains have been considered, in turn, as:

- very poor aquifers (due to low permeability) in which conventional wells, which were over-sensitive to the

- fluctuations of several metres in level that caused drying, had been sunk;
- a barrier to prospection, as they mask the reservoir of fissured rock which it is proposed to bore;
- a filter ensuring that underground water is perfect from a bacteriological point of view;
- most importantly, a buffer reservoir which slowly drips water into the fissured reservoir which can be tapped more easily (because, of course, bores can be let into the fissures).

It is the combination of hard fissured rock and weathered formations which makes the true aquifer system. It is that which gives it, separately but jointly, its job as reservoir and conduit and it is that which is the subject of some of the most important hydrogeological research. The reality as far as water resources are concerned is based on the threefold criterion of reserves, associated with possibility of access and economy of exploitation.

So research concentrates on rain replenishment phenomena and on the potential for the deferred replacement of precipitation.

The drought-resistance of the buffer reservoirs is considerable and it means that resources that would be contaminated in a few months in a solely fissured environment stay permanently good. During the recent drought, there were drops of several metres in only a few years, but the phenomenon that resulted in a smaller-than-average annual supply should not be looked upon as something essentially different from the fluctuations in rainfall mentioned above. It is perfectly reasonable for this type of water table to drop when rainfall is short several years running and it is every bit as reasonable for the level to go back up again in years when rainfall is abundant⁽¹⁾. It is even more important—and reassuring—to have a multiannual as well as an annual regulator.

The draining of weathered rock may produce a flow large enough for boreholes to tap. It may be a low percentage of the volume of the terrain (a few dozen litres per m³ of the area in question).

In other words, a drop of 1 m over 1 km² gives tens of thousands of m³ water—if we can tap it.

Underground water resources and development

So these water resources that sub-Saharan Africa apparently lacks are in fact there. They are modest resources, of course, and they are also hidden, but they are resistant to seasonal variations and the everyday hazards of climate. And they are safe from biological pollution.

Underground water resources can only really be evaluated in relation to the use that can be made of them. Modest and hidden they may be and spread, although not randomly, they may also be, but they are within reach of the hydrogeologists—whose success rate in meeting drinking water requirements (in village water engineering schemes) is between 80% and 90%. Can it help cover the needs of development too?

The amount of data at our disposal and the techniques of decisional cartography mean we can easily locate zones likely to yield sufficient flow to

⁽¹⁾ This is also how alluvial water tables in the Sahara work. The Kairouan table in Tunisia dropped for 30 years but was replenished with just one high-water level.

create small irrigated plots. We can say which geological areas are favourable and we can, with careful prospection, have statistically predictable success in sinking wells and boreholes to meet needs in these areas during water point provision campaigns. Water depth conditions also need to be considered, as they determine how pumps should be powered. Excessive depth may make projects uneconomic or mean that a specific type of material has to be used.

Given a knowledge of the buffer potential of the aquifers and data on rain replenishment, it is relatively easy, without the risk of much annual discrepancy, to plan to use flows of a few m³ per hour i.e. to create plots of a few hectares with additional irrigation—associated with irrigated vegetable growing over smaller areas in the dry season. This is the sort of development that is within our scope and its economic profitability to the peasant farmer can be demonstrated in that the only heavy investment (the borehole) is a substitute for food aid or, again, for major developments (paid for by the community) which may not always have very encouraging results.

So, over much of Africa, nature has provided an intangible element, underground water, and a recently rediscovered phenomenon, village water control.

Spreading all this to a large number of people in such a way as to give a genuinely macro-economic dimension to this kind of development of course raises the problem of water resources. Can what is possible in one place be repeated elsewhere?

Researchers are still trying to find a rapid answer to this question. There are 10 EEC-financed pilot projects equipped to run research in various climatic conditions from northern to southern Burkina Faso with a view to a better quantification of rain replenishment. The value of the resource that can be globally exploited and relatively densified is what we are waiting for to organize development. Although we can already ensure that small farm plots work, we still do not know how to determine maximum number and optimal spacing over the favourable territory.

An answer will only be obtained from the close association of research

and early implementation. There can of course be no question of deliberately running the risk of allowing the farmers, the new irrigators, to go in for over-exploitation or over-density on the grounds of making a clinical study of their case. But hydrogeology is such that life-size working models are called for and it is by observing the effects of working the land on one or two pilot projects chosen from amongst the first installations that we can adjust the total number of future plots in a period of normal operation. It is not absolutely incompatible with the desired development. It is controlled lift-off.

In many parts of the world, the development of underground water resources has happened in this way, with knowledge accompanying action. It would be unreasonable and unfair to suggest that Africa use a different method, as this would involve unendurable time lags and unbearable costs.

Although doubt as to the number and limits of the irrigated plots still exists, we are already perfectly well able to identify areas where significant schemes can be launched and made a success of and there are spontaneous operations, particularly in Niger, to prove it.

What are needed are immediate feasibility studies and speedy definition of the limits of the resource so that action can begin without delay and underground water can be an integral part of a real food strategy and play a greater role in development.

Yet another conclusion

— Underground water is used up, even if we fail to make use of it.

— However we use surface water and rain water, some of it will still filter through.

So there is no theoretical or philosophical reason to deny ourselves use of a resource whose perfect conservation is bringing us no benefit nor guaranteeing a better future. The only thing that really counts is a management strategy that is geared to the specific characteristics of our underground water resources and is able, in particular, to capitalize on the time-phase and inertia which are its original features, particularly given the rigours of the African climate. ○ J.J.C.

Non-conventional water resources

By Marcia BREWSTER (*)

The bulk of water used for household consumption comes from streams, rivers, lakes or ponds or from wells. But there are many other ways of obtaining drinking water...

The International Drinking Water Supply and Sanitation Decade, launched by the United Nations in November 1980, has as its ultimate objective the extension of water supply and sanitation services to all people, particularly in rural areas of developing countries, by 1990. In many water-short areas, national plans and programmes involve considerable development of non-conventional water resources.

Non-conventional water resources do not create new water, but only expand the potential for treating and utilizing water sources which were previously considered unusable or unav-

(*) Edited version of a longer article provided by the author, an Economic Affairs Officer in the Water Resource Branch, Natural Resources and Energy Division of the Department of Technical Co-operation for Development, United Nations, New York.

ailable. This means that sea and brackish water, waste water and water located in distant places can now be considered as potential sources of fresh water.

It should be remembered that households in water-short areas already rely on very expensive sources of water. Villagers may pay a lot each day for water to live on, and therefore they cannot build up the capital necessary to construct a better water supply system. The government may be able to provide the assistance needed to invest in a non-conventional water resource, if the community pledges to cover all operation and maintenance expenditures.

Development of brackish and sea water sources

In the past, brackish and sea water were not considered resources which could be developed for potable or agricultural use. The high levels of salts in these waters made them unpalatable for human consumption and impossible to use for normal agriculture. However, the use of desalination processes has now made these saline water resources available for man's use.

The desalination industry as it exists today began approximately 30 years ago in the early 1950s. Previously, small stills had been used to produce fresh water on ships for several centuries and distillation technology was well known in certain industries.

It was not for a lack of need or desire, as the use of marine-type distillation plants for land-based municipal applications was discussed by various localities in the Caribbean and elsewhere in the early 1900s. Installations were constructed in locations such as the Netherlands Antilles and Egypt. While the technology (distillation) was available, the major problem was economics. The cost of distilling sea water or brackish water to produce fresh water was quite high when compared to conventional water sources. Only a few special applications and/or local communities could afford the cost. These were mostly confined to military and special industrial applications.

The considerable experience that has been gained over the last 20 years and improvements in technology in desalination using the distillation, electro-dialysis and reverse osmosis processes have made desalting a widely accepted technology, supplying high quality water to water-short areas which had formerly been restricted from long-term social and industrial development.

In the mid-1960s desalination was still a novelty, much of the work in the field was experimental and many of the early plants failed to meet expectations. At present, it is a largely reliable technology on which many countries depend for their daily water supplies. However, the costs are still relatively high; such high prices for water can only be justified under very site-specific conditions.

A major prediction made in the 1960s which has not come true was that the tremendous research and development effort in desalination technology would lead to a continuing decrease in costs per unit of product water. The probability of a continued downward trend in the cost of desalted water in developing countries was foreseen. This has not been the case, although costs in the early 1980s have stabilized to some extent. The 10-fold rise in oil prices since 1970, combined with high interest rates and inflation



Desalination is an expensive technology that most poor countries cannot afford

Unesco/J.H.A. Kleijja

of materials prices, have made cost reductions unattainable. There was also the prospect that increased incomes of people in developing countries would put the costs of desalted water within their reach.

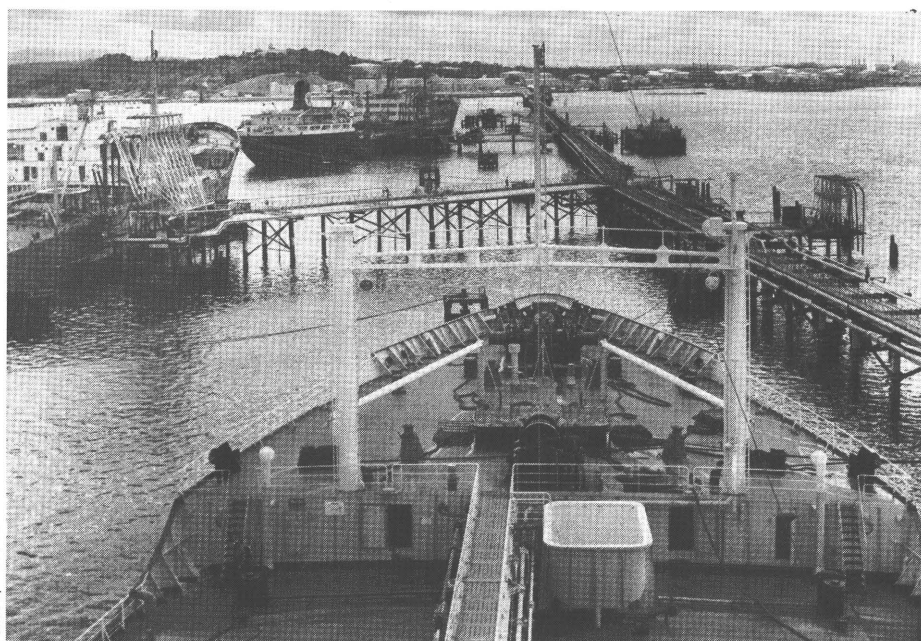
It has become sadly apparent that incomes in poor countries have not risen as expected, and desalination has become a viable technology only in middle-income and oil-exporting countries. Costs of desalting projects are still beyond the means of most rural communities in poorer countries. The process is inherently energy-intensive and improvements in equipment and efficiency have been offset by rapid increases in energy costs. However, despite the substantial costs involved, the availability of desalted water can be an economic boon to an area. Where water is scarce, it is often transported over long distances by tanker or truck. When the water is sold, its unit price often exceeds that of desalted water. Therefore, the economic conditions to support desalination already exist in many water-short areas of the Caribbean.

Transport of water by tanker

Water is commonly transported from source to end-user at locations throughout the world. Except for those people who live on or along the shore of a river or lake, most consumers are dependent on water that has been transported some distance from its origin.

A common means of transport is a pipeline, which conveys water from its source, such as a river or reservoir, to its destination, the end user. This is a convenient, although rather capital-intensive, method of supplying water to the user. In some developing areas, water is provided by a village well, which supplies the water to people who carry it to their homes in buckets or jars. Although this does not require a lot of capital, it is labour-intensive and delivers water to the point of consumption in discrete units where it must be stored until used.

The transportation of water on a large scale by tanker is more closely related to hauling water in buckets than to transporting by pipeline, as the water is conveyed to an area in large



Texaco/Trinidad

The possibility of transporting large quantities of water by tanker has recently become much more attractive

individual units. Tankers of various sizes may be used to transport water from a place with a surplus of water to places with a shortage. The source might be a river with surplus water, such as the Layou River in Dominica. Depending on the tanker or barge selected, up to about 250,000 m³ (60 million gallons) can be hauled in a single trip.

Since time in port is an important economic consideration in ocean shipping, efficient water transport requires port facilities at both the source and receiving ends which can deliver or store large quantities of water. This usually means modern docking or mooring facilities, large pumping stations and storage tanks.

The use of tankers for the long term supplying of water to an area is not widespread, but it has been done. From 1965 to about 1980, barging of water between Puerto Pico and the Virgin Islands supplied the island of St. Thomas with the major portion of its municipal potable water supply. For about five years, oil tankers have transported fresh water as ballast between New York and the Netherlands Antilles. Other instances can be cited, although large-scale use of very large tankers exclusively for water transport over a long period of time has not been tried.

The possibility of transporting large quantities of water by tanker has re-

cently become much more attractive for several reasons. With economies of scale resulting from the construction of very large crude carriers (VLCCs) and ultra large crude carriers (ULCCs) from the late 1960s to the early 1970s, the unit costs of transport by tanker have declined since the late 1950s. Moreover, with the current glut in the oil market, more than half of the tanker fleet was laid up and transport costs were barely enough to cover costs of operation in 1984. Shippers were willing to consider transporting water as long as they were compensated for any additional costs involved. With new regulations of the International Maritime Organization (IMO) introduced in October 1983, tankers will be required to reserve certain clean ballast tanks (up to 30 % cent of total carrying capacity) for fresh water, in order to reduce pollution. These tanks could be used for transporting water to arid areas on return voyages.

In the late 1950s and early 1960s the transport of water by tanker was generally not feasible because of the low cost of the commodity compared to the high cost of transport. At present, several such transport schemes are operating, and many tanker operators are promoting water shuttle services, in order to utilize the excess capacity of the tanker fleet. The cost of used tankers is very low at present and some owners are buying up old tankers for the purpose of transporting

DOSSIER

water. In certain circumstances, developing countries along the tanker routes could benefit from selling water, and arid oil-exporters or island countries would be markets for the transported water.

Ports in developing countries have not so far been widely adapted for water loading. However, the government of Dominica has constructed facilities and extended water exporting rights to private firms. Dominica is located close to tanker routes and has made its prodigious supply of good quality water available for shipment. Off-shore buoy mooring facilities are available in deep water with submarine pipelines to on-shore water reservoirs. Abundant water of good quality from the Layou River can be made available at quantities exceeding 50 million m³/yr for shipment to Caribbean or Middle Eastern ports. In early 1984 exports of water were being shipped from Dominica to Aruba (Netherlands Antilles). The Government of Dominica was selling fresh water in early 1984 for a price of about \$ 1.40/m³ (\$ 5.30/1 000 gal) for delivery to Aruba. The water is being transported to Aruba in a small tanker of approximately 40 000 dwt. The cost of transport is roughly estimated to be about \$ 2 to \$ 3/m³ (\$ 7.50 to \$ 11.90/1 000 gal). Studies were also being conducted on the economic feasibility of selling water to be transported to the Middle East as ballast on the return voyage of oil tankers delivering oil to refineries in the Caribbean.

The future of tanker transport of water is less a matter of technology, which is relatively straightforward, and more a matter of economics under actual market conditions. The current excess capacity of very large tankers cannot be expected to continue forever, as surplus vessels are being sold for scrap and as the world's need for oil increases. The removal of the extra vessels from the market may have a negative effect on the economics of this mode of water transport, or, alternatively transport of water may develop into a satisfactory market for the tanker fleet.

Transport of icebergs

Another transport operation which is of some interest is the transport of water by icebergs, which are made up of high-quality fresh water and can be found floating near the polar regions. The possibility of transporting icebergs for their high-quality water still remains in the realm of speculation. Considerable research on icebergs has been carried out, especially by the International Ice Patrol and universities.

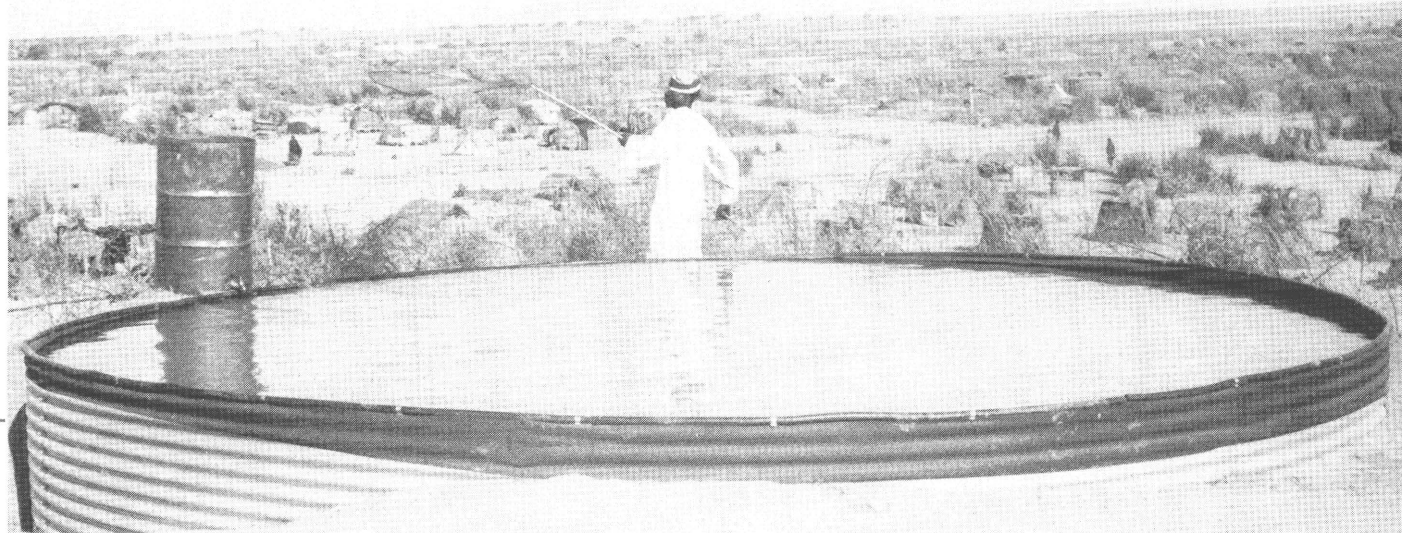
Potential in developing countries.

From historical evidence, as well as from more recent simulations, it seems that the most feasible route for transporting icebergs would be along the Humboldt current going north from Antarctica along the west coast of South America. The countries with arid areas along this route are Chile, Peru and (possibly) Mexico. Chile and

Peru have the advantages of very deep and cold water along their coasts. Thus, these two developing countries could most easily benefit from a scheme for transporting uncovered icebergs from Antarctica. Oceanographers are counting on major forces of nature to aid in reducing costs. Once the tug enters the Humboldt current off the coast of South America, most of the northward movements of the iceberg would be assisted by ocean currents, and the main task for the vessel would be to keep the iceberg within the flow of the current. Nevertheless the expenses are great, and other alternatives would certainly be chosen by the South American countries before they would venture an iceberg scheme. In regions further north along that route, such as Mexico or California, insulation would be necessary and the cost would probably be prohibitive at present.

Saudia Arabia has indicated the most serious interest in transporting icebergs in recent years, but the Antarctic-Indian Ocean route represents perhaps the most difficult case. Most of the Indian Ocean along the proposed tow route is covered by water at a higher temperature than 20°C, with surface temperatures of the Arabian Sea above 28°C in July and August. The high sea-surface and air temperatures would cause substantial melting, and severe storms are likely to plague the tow. This scheme seems impossible to implement unless thermal insulation and protection can be provided for the iceberg, or unless a method can

EEC/Aurea I. Singh



be devised for collecting melt water along the route (Denner, 1978).

Despite the considerable research and speculation that has gone into trying to prove the feasibility of an iceberg transport operation, the technology has not yet been developed, nor has growing demand justified the necessary expenditure. This water will continue to be stored for future use at a time when mankind becomes desperate enough to require its harnessing.

Waste water reuse

Water is used for a variety of applications, such as drinking, cooking, cleaning, sanitary flushing, agricultural irrigation and industrial processing. In many countries, water is so plentiful that the same grade of water is used for all of these purposes. In water-short areas, where the cost of potable grade water is very high, it may be prudent to consider the use of water of lesser quality for some of these applications.

In developing countries there is limited scope for waste-water reuse, since many of the nations do not have sewerage systems which collect the used water. In small villages dependent on standposts for water supply, there is generally no system for collecting used water. However, there is certainly scope for constructing new industries with recycling systems for water. Moreover, domestic waste water which is collected can be used, after treatment, for agricultural purposes. As water becomes more scarce and developing countries become more concerned about conservation of water, the reuse of treated waste water in agriculture and industry is likely to become considerably more important.

The future prospects for the widespread application of water reuse in the developing world depend on a number of important factors. The first is the installation and use of waste water collection systems (sewers, pump stations, etc.) to provide a source of waste water. The second will be further research into the long-term public health implications of various levels of water reuse. The final factors will be the cultural acceptance of the reuse of water for various beneficial uses and the desire to treat waste water discharge so as to minimize its effect on the environment and on public health.

Artificial rain

One positive way to increase the water resources in an area is to enhance the supplies or sources which are already available, primarily by increasing the rainfall through weather modification. Weather modification in the context of this paper is limited to precipitation enhancement (cloud seeding). Work in this field has concentrated on converting water vapour contained in clouds into rain. Obviously the prime ingredient necessary is clouds of the appropriate type and in a suitable location to produce beneficial rainfall. Once suitable clouds are available, which must happen naturally, they are seeded with materials in an attempt to promote rainfall.

The seeding of clouds to modify the weather pattern is not an exact science. The clouds must be suitable and the proper amount of chemicals (not always known) must be applied. It appears to work better in some places than in others, although ascertaining whether rain was actually caused by seeding or would have occurred anyway is another complex matter. Moreover, it cannot be predicted with certainty that seeding will work for any given event.

Despite the fact that today's techniques aimed at precipitation enhancement rest upon sound physical principles, the progress made in this field, though quite significant, has been fairly slow. Carefully controlled application of such principles, however sound, is made difficult by the overwhelming complexity of atmospheric phenomena. The unpredictability and variability of atmospheric phenomena in time and space make the science of weather modification a difficult one.

Pseudo-scientific rain-making experiments of the past have given way in recent times to a concentrated scientific effort, resting on accepted principles of cloud physics. Over the last 35 years, some progress in this field indicates that artificial precipitation may be an economically beneficial method of producing rain. Efforts have been made to modify the weather in such countries as Australia, India, Israel, Spain and the United States. The most successful experiments so far seem to have been in Israel, where it is postulated that the right kinds of clouds are common.

To be effective, the rainfall produced must have a beneficial effect on the water resources of the region where it falls. Thus, crops should be irrigated and ground water and/or surface water should be increased and the increase used. This means that careful regional planning and investment are probably needed before weather modification is attempted and a backup plan formulated, in case it fails.

Research into cloud seeding techniques has been very active over the last 20 years. In the early and mid-1960s there was considerable optimism in countries such as the United States, Australia and Israel that weather modification could provide the additional water supply required to meet growing demand in agriculture, industry and municipalities.

However, while overall results have been very positive in one country (Israel) the earlier optimism in other countries has been tempered by experience. Rain making is a very risky business and its success is extremely difficult to document statistically. Because of the high risks involved, many communities depending on rain would not want to invest in such a venture. Moreover, during a dry or drought period, there are generally not enough clouds suitable for seeding. The technology works better during wetter periods and is most useful for filling reservoirs or recharging aquifers. Thus, the infrastructure has to be available to catch the water. While most countries have reduced their programmes in this field, the World Meteorological Organization (WMO) has in recent years launched its Precipitation Enhancement Programme. It is hoped that research carried out under that programme may lead to a better understanding of the processes of weather modification. It can be expected that, as the body of knowledge on the causes and effects of weather patterns increases the ability to make predictive changes in weather will increase.

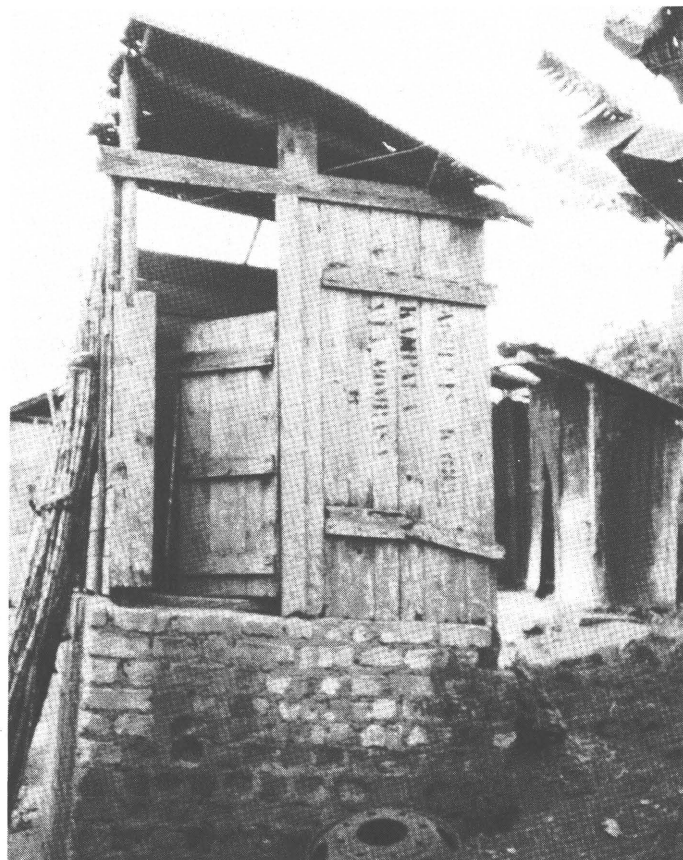
Conclusions

In summary, there appears to be a role for some of the non-conventional water resource techniques. The selection and use of a non-conventional technique must be done carefully, with full recognition of the potential positive and negative implications that could be involved. ○ M.B.

Sanitation, a crucial problem

By John PICKFORD (*)

The quality of water is directly affected by pollution of the environment. In developed countries there are countless instances of the kind of pollution whereby effluent from factories makes river water unfit for consumption. Most ACP countries are relatively free of this particular ecological risk. They do, however, suffer from another kind of pollution which is just as dangerous to man's health—that resulting from the absence of, or poor quality of, latrines. The vocabulary used in this article may be a little crude—inevitably—but these are things which should be talked about...



Latrine of the type commonly found in East Africa

For nearly ten years the World Bank and other international agencies have been stressing the importance of sanitation that is truly appropriate for low-income beneficiaries. A wealth of literature dealing with low-cost sanitation has been produced for the International Drinking Water Supply and Sanitation Decade, 1981-1990. Numerous articles on simple or 'appropriate' technology have been included in journals for the water industry—even in those publications that give most attention to sophisticated technology.

Many simple sanitation construction methods have been widely known and used for a long time. WHO Monograph No 39 written in 1959 by Wagner and Lanoix includes much of the essential technology applicable to rural areas and small urban communities in developing countries. Even this was not new, for most of the sanitation techniques described by Wagner and Lanoix had been used for generations.

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What is new in the 1980s is the widespread interest in, and emphasis on, low-cost solutions to the problems of waste. In the Decade, now just past its mid-point, attention is being given to finding and applying the best ways to implement, operate and maintain these low-cost solutions, working appropriately with, and for, the local beneficiaries.

Sewerage no answer

Many politicians, consulting engineers, economists and senior civil servants continue to concentrate on sewerage and sewage disposal. Master plans still investigate the feasibility of sewerage. Project reports give details of the size and length of pipes. Treatment by mechanical equipment is favoured. As a concession to 'appropriate technology' sewage may be treated in ponds, although these also require piped sewerage systems to carry the waste to the ponds.

In Africa as a whole only a few cities have satisfactory sewers. Several capital cities have good sewerage in the commercial centres and in the upper-class residential zones. Cairo's sewerage system is being revitalized at a

cost of hundreds of millions of dollars. In Dar-es-Salaam the sewers serve a small proportion of the population, yet only a few years ago all except one of the sewage pumping stations were out of action. A large World Bank loan was necessary to put things right. Many visitors to Nairobi only see the central areas with magnificent hotels and well-stocked shops—all well sewered. But in the peri-urban fringes there are no sewers. Quite close to the city centre, large groups of squatters have crude latrines that are a constant danger to health.

Free-ranging defecation

The most fortunate and affluent people in developing countries have ample water supply and properly-functioning water closets that discharge to sewers or to septic tanks on their plots. But the majority of urban Africans, as well as virtually all in rural areas, have no sewers. Some have pit latrines of varying quality. Many have to use open fields or resort to the roadside and vacant sites in towns. Using the term applied to poultry farming, this type of sanitation may be called "free-ranging".

Free-ranging defecation inevitably leads to the spread of disease. Soil contaminated by excreta is an ideal place for hook-worm. Children play on the ground, put their fingers in their mouths and become infected by worms and a variety of other excreta-derived diseases. Flies feed and breed on faeces and then have their next meal on food prepared for human consumption—passing on germs that cause diarrhoea-type illness. Cholera is an especially alarming diarrhoeal disease. It can kill quickly. But dysentery and other diarrhoeas are really more serious, because hundreds of millions of people suffer from these diseases. Young children are often victims, particularly those who are under-nourished.

Many people choose streams, rivers and ponds for free-ranging defecation. Even when a chosen site is far from water, heavy rain washes surface dirt into streams and ponds. These become polluted. Other people drinking polluted water are likely to become infected. Diseases causing diarrhoea are most common. Even when there is safe drinking water drawn from a protected well or hand-pump, disease can be spread by washing utensils in polluted water.

Bilharzia (schistosomiasis) is also spread when urine or faeces from an infected person reach water in which there are snails. Bilharzia is very prevalent in Africa, the Caribbean and many Pacific islands. I recently visited a rural school in Africa. The schoolmaster told me that the majority of his children had bilharzia. It is a slowly-developing disease which af-

fects many internal organs—liver, spleen, kidneys—reducing the ability of infected people to work properly.

Crude latrines

Latrines attempt to overcome the worst effects of free-ranging defecation. At least the faeces are concentrated at one place, although if a latrine is itself unsatisfactory it may act as a focus for the spread of disease.

In former times many towns had well-managed bucket collection systems. Conservancy workers or 'night-soil men' visited latrines regularly every night, emptying buckets placed under latrine seats and squatting slabs. Some night-soil men were convicts or workers from other countries. Although there are still thousands of bucket latrines in urban areas, the system now rarely operates well. Because good conservancy buckets are difficult to obtain, householders use old cans that soon corrode and leak. Collection is irregular. Flies proliferate. The work is socially unacceptable. Bucket contents overflow and are spilled during collection. Collection is often at night (hence the term 'night-soil'), and workers without adequate supervision dump the collected excreta in streams, on the roadside or on vacant land.

Some unsatisfactory pit latrines merely consist of a hole in the ground. Walls of some sort around the pit may give some privacy. There may be a roof. A couple of logs are placed across the top for users to place their feet while squatting. Flies gain easy access to excreta and come out in large numbers. If the pit is waterlogged it

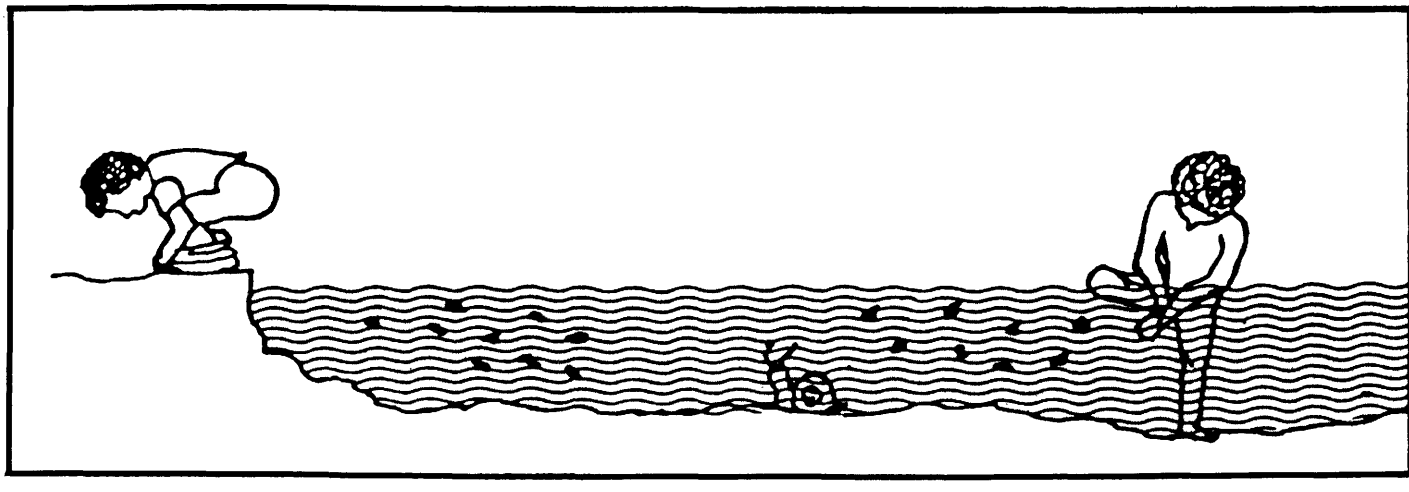
may become a breeding place for *culex pipiens* mosquitoes, which like polluted water. These mosquitoes spread filariasis, a disease which can lead to elephantiasis with ugly and immobilizing swelling of limbs. Gaps between the logs forming the latrine floor are often large enough for children to fall into the pit. Wooden floors may be attacked by termites or the sides of the pit may be eroded by surface water, leading to collapse of the latrine.

Good pit latrines

In some areas there is a tradition of digging very deep pits — deep enough to last the household for many years. I have personally inspected many latrines in East Africa which had already been in use for more than 20 years. I particularly remember a householder in Uganda who had just completed a latrine for his family with a pit which was 13 metres deep. In Kenya a contractor I spoke to claimed that a double latrine under construction had a 15-metre deep pit. Traditional ways of making the floor include the use of hardwood logs covered with mud finished to a hard smooth surface which is easily cleaned. Holes for defecation are of various shapes, a common size being about 150 mm wide by 250 mm long. While the accumulated excreta in deep latrines is well below the floor there is little nuisance from small flies or mosquitoes. Decomposition and consolidation of faeces sometimes more or less balances the input.

The rate of accumulation of solids in a pit depends on a number of factors, including the temperature, the

The transmission of bilharzia through freshwater snails



ability of the soil to absorb liquids and the material used for anal cleaning. Leaves, grass and corn-cobs are commonly used for anal cleaning in rural areas; in towns, old newspapers, mail-order catalogues, telephone directories and school exercise books are usual. In some places anal-cleaning material is put into baskets and burned, as this increases the effective life of the pit. Some cultures use water for anal cleaning and it is then possible to dig the pit outside the latrine and connect latrine and pit by a pipe or brick-lined channel. A water-seal trap prevents the escape of bad smells from the pit, and flies and mosquitoes cannot get into or out of the pit.

Pit latrines of one sort or another are suitable for rural people and for many urban areas. Even in quite large towns well-built and well-maintained pit latrines are better than more sophisticated systems that do not operate properly.

Improved pit latrines

Many international bodies now recommend a ventilated improved pit latrine (VIP) where the pit is under the latrine. The pit may be improved by providing a concrete squatting slab. The pit may be lined, at least near the top, to reduce the chance of collapse. The pit may be ventilated through an asbestos cement or plastic pipe extending above the roof of the latrine building. The top is covered with a flyproof netting screen. There is substantial evidence that screened ventilation pipes greatly reduce the emergence of flies into the latrine.

The actual latrine building, or superstructure, is of less importance than the below-ground-level pit, although it is advantageous for the latrine to be dark to reduce the emergence of flies through the squatting hole. A form of VIP introduced in Zimbabwe and known as the Zimvip has a spiral-shaped building, providing privacy and a dark interior without a door—doors may be very costly in wood-scarce areas. In other southern African countries the spiral idea has been incorporated into latrines with straight walls built of bricks or blocks, and

ventilation is provided through a chimney incorporated into the walls.

Double pit latrines

Instead of large pits with capacity for many years' accumulation of faeces two smaller pits can be used alternately. The pits may be alongside each other with a common dividing wall. If the latrine is above the pit, two holes are provided, one for each pit. One hole is blocked while the other pit is used. For pour-flush pits a Y-junction in the pipe or channel enables the excreta to be diverted to either pit, and the pits may then be adjacent with a

hundreds of thousands of latrines have been converted to pour-flush double pits and the contents of full pits have been removed manually.

Once it is realized in other countries that two-year-old pit material is harmless there may be no objection to emptying pits by hand. However, cultural objections to manual removal prevent ready acceptance of this practice. So attempts are being made to develop machines capable of taking out the solids from full pits. Tankers commonly used for emptying septic tanks are not strong enough and so far more powerful vacuum tankers have



Many people choose streams, rivers and ponds for free-ranging defecation

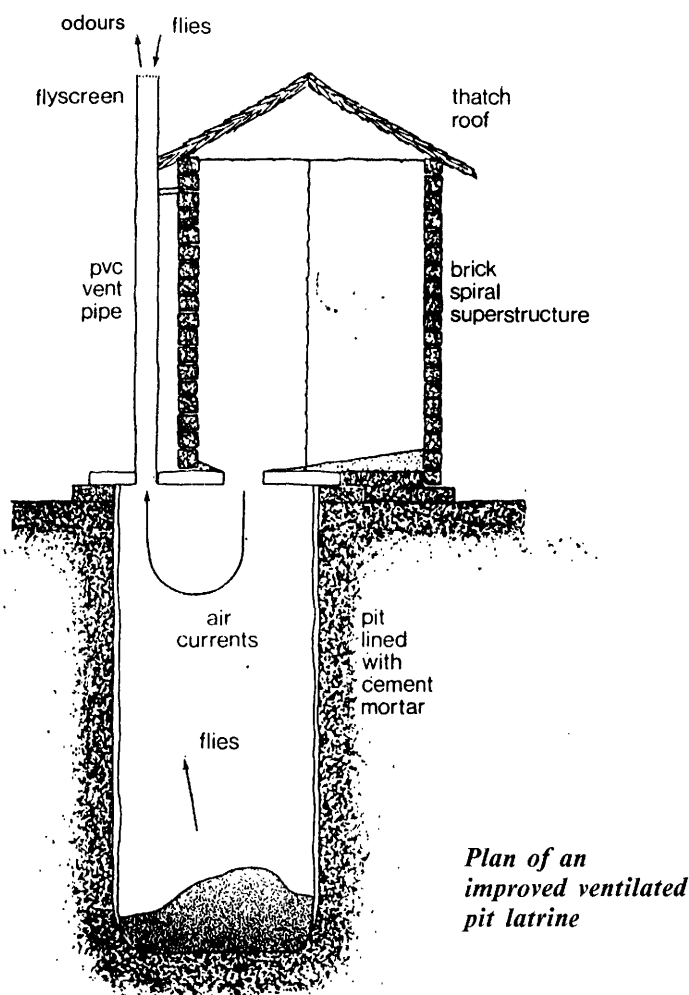
common dividing wall or they may be completely separate.

The basic idea behind alternating pits is that the excreta becomes harmless and innocuous after a year or so. Most disease-carrying organisms die quickly outside the human body. Even the most persistent, the eggs of roundworm, are harmless within a year. So allowing for a safety margin each pit can be limited in size to the accumulation of solids in two years. Then by the time one pit is full the solids in the other are safe for removal and spreading on farms and gardens where they add to the fertility of the soil. In India

proved too expensive for general adoption.

Cultural attitudes to sanitation

Objections to contact with faeces, even when it has become safe and innocuous, are common. In some areas there are also traditional taboos against the use of latrines by certain people. For example, pregnant or menstruating women may be excluded from defecating in the same place as men. Daughters-in-law may be prohibited from using the same place as



Plan of an improved ventilated pit latrine

their fathers-in-law. More prevalent is non-acceptance of latrines altogether or resistance to the effort and expense of providing latrines in districts where free-range defecation has been the usual practice.

Overcoming such objections often involves health education. The notion that disease is spread by micro-organisms rather than by chance or the operation of witchcraft or spirits may be the first step in introducing a latrine construction programme. Community participation in gaining acceptance of latrines and in planning and implementing latrine-building programmes is now generally recognized as being of at least as great importance as devising appropriate forms of construction.

In fact, several facets of a sanitation programme must go together. The latrines must be socially and culturally acceptable. The technology must be appropriate for the local situation, which in particular means that very

low cost latrines should be available for poor people. Then there may be a some kind of institutional support. For example, the government or local authority may provide free or subsidized ventilation pipes to householders who dig their own pits.

Other forms of on-site excreta disposal

Some years ago it was reported that compost latrines had been successfully used in Vietnam and various types of compost latrines have been produced commercially in Europe and North America. In effect these are watertight chambers in which a mixture of faeces and vegetable waste or wood ash are decomposed under controlled conditions. Attempts to introduce compost latrines in Africa have failed.

Septic tanks followed by soakaways or infiltration drains treat the discharge from water closets on site. Well-designed and well-built septic

tanks on large plots with permeable soil have proved completely satisfactory in many developing countries and householders are sometimes unaware that their waste is treated in septic tanks rather than discharged to sewer. In fact, septic tanks have many of the advantages and disadvantages of sewerage. They remove waste with no effort by the householder but they require a reliable and ample piped water supply, they are expensive and the drains are liable to blockage if hard material is used for anal cleaning.

Aqua-prives are similar to septic tanks except that the latrine is immediately above the tank and excreta is discharged directly into the tank with no need for flushing water. They can therefore be used for homes without piped water. They overflow to soakaway pits, retaining solids in the tank for removal by vacuum tanker. For their fairly high cost they have few advantages and are not now recommended.

Sullage disposal

Apart from septic tanks, none of the on-site systems deal with sullage, the 'grey' waste water from bathing, washing utensils and vegetables, and other domestic activities. As water supplies improve, sullage becomes an increasing problem. Where water is carried home from a stream, pond, well, handpump or public standpipe the wastewater can often be tipped on the ground or into a simple soakaway in low-density areas. Once piped water is provided, or where plots are largely occupied by buildings, or where the soil is impermeable, the wastewater lies in pools giving danger of disease, because breeding of mosquitoes is encouraged.

Low-cost means of getting rid of sullage is now one of the most pressing problems for sanitation in developing countries. A possible scheme is for each household to have a small wastewater tank where solids are retained for periodic removal. Overflow from these tanks being free from solids can be conveyed in small-bore sewers at flat gradients. The cost is less than conventional sewerage, but the system needs large-scale trials in a variety of Third World conditions before it can claim to be the solution to the sullage problem. ○ J.P.

Better health through better water

By André PROST (*)

A threefold increase in the size of the rural population with access to decent water and many more drainage operations no doubt constitute progress. But have they improved public health and, if so, how? There is more to it than just developing infrastructure. That infrastructure has to have an effect.

Drinking water supplies and sewage systems are a prerequisite of better health. Without them, any medical intervention (treatment for diarrhoea and dermatitis for example) will be palliative at best and fail to attack the root cause. There can be no lasting improvement in the health situation unless people have enough decent water within easy reach. So it is not by chance that the list of priority health actions proposed by the Alma Ata Conference put water supplies on the same plane as health education, nutrition, vaccination, mother and child welfare and the treatment of the commonest diseases.

The rural and peri-urban populations are well aware of this, water being their top priority, ahead of dispensaries, as most surveys on the subject in the Sahel have shown.

But water has to be more than available. Its supply must be part of a series of measures, the combined effect of which is greater than the sum of the (weak) individual parts—which are, mainly, personal hygiene, clean food, hygiene in water utilization and the evacuation of excreta. The dangers of untreated sewage must be avoided. In no community has diarrhoea been beaten without clean food and health education being added to drinking water supplies. A study run in The Gambia shows that one of the main sources of infection in young children is dirty cooking utensils and the use of contaminated flour for porridge.

(*) Dr Prost is an epidemiologist with the environmental hygiene department of the World Health Organization.



Rural populations place the highest priority on water supply

And the effects of the sort of water strategy we have defined will be optimized if it is part of a coherent health development programme and just one of many services offered to an underprivileged population. This is where we find synergy of water supplies and improved health services, with an ultimate result that is better than would have been achieved if the two operations had not been combined. In, say, an extended vaccination programme run by mobile teams, a large number of children will go on dying of other diseases (diarrhoea, malnutrition and respiratory ailments), but in Egypt, for example, a combined campaign against diarrhoeal diseases and for better water made the vaccination programme a more effective way of reducing infant mortality.

Another important finding is that there seems to be a socio-economic development threshold below which the improvement to health of public facilities like water supplies and health infrastructure is practically indiscernible. Large-scale, high-quality investments are needed for minimal results. However, socio-economic levels be-

tween the threshold and a higher degree of saturation show a virtually linear relation between improved drainage and better health. This does not mean that there is no point in doing anything below the minimum socio-economic level. What it does mean is that there is no point in judging the profitability of such an investment in the light of its immediate results alone. These are long-term affairs and an integral part of the development process (which it both accompanies and paves the way for). The profound cultural implications are revealed in the slowness of the changes in individual behaviour.

What water and what effect?

WHO has made recommendations on the purity and quality of drinking water⁽¹⁾, but the ideal is rarely achieved. It is easier in towns and built-up areas where there are central purification facilities and frequent controls, but it is difficult in the case of individual systems (improved wells, tanks, family pumps and so on) where control is rare or non-existent and quality criteria are more flexible (see volume 3 of the Guidelines). Quality is a more complex issue in tropical climates than in temperate ones. Higher temperatures encourage germs to multiply and slack hygiene increases the risk of faecal contamination. However, there are two important things to remember. First of all, water does not have to be absolutely pure for health to improve. Second, water will only stay pure if it is used properly.

(a) In many cases, the real problem is not getting pure water but getting any water at all. Quantity is more important than quality. Adequate supplies of water, even if it is bacteriologically or chemically poor, will increase the volume of water used for hygienic purposes and thus cut down on the water-washed (as compared to water-borne) diseases that occur when there is no water available. These ailments include skin infections as well as scabies, ringworm and conjunctivitis and in some cases the incidence of diarrhoea will drop too. Lastly, the wo-

(1) Guidelines for Drinking Water, 3 volumes, WHO Geneva, 1984-85.

man's burden will be lighter because she will no longer have to spend hours every day doing the tiring job of fetching tiny amounts of water from sources several miles away. Studies in West Africa and Latin America show that much of the time women now save in this way is spent on the children, with an improvement in the latter's diet as a particular result.

(b) Supplies of pure water are likely to have no effect if no-one bothers about the way it is used, carried or maybe even stored. This is the problem of the functional use of water. There are several studies to show that water supply systems only have a significant effect on the incidence of diarrhoea and enteritis (cholera in Bengal and shigellosis in the USA) if each house has its own distribution point. If water has to be obtained from a public fountain, then the effect on health decreases in the light of the distance between the house and the source of supply. In cases of this kind, water is carried in jerrycans and stored in them or in water jars, where it is open to pollution, in the home. The further the fountain, the longer people tend to keep their water (to cut down on trips) and the greater the contamination.

Direct results of better water supplies

The diseases which can be contained by better water supplies can be divided into three categories.

(a) The incidence of some diseases will decrease simply by increasing the amount of water used for washing and hygiene (external use), regardless of its

quality. These are the water-washed diseases—infectious dermatitis, impetigo, scabies, ringworm, conjunctivitis, thrachoma, otitis of the outer ear and yaws—we mentioned above. When a water programme is run in an area where there was none before, the drop in the incidence of dermatitis is the earliest indicator to emerge and the most constant. In the Kisantu region in Lower Zaïre, one dispensary found that consultations for skin infections were as much as 15 times less frequent in villages which had a water-drainage programme going. Other studies have shown a decline in the incidence of acute rheumatism (and its cardiac implications) when water supplies improve. This is due to a reduction in streptococcal dermatitis.

(b) Water-borne diseases are those resulting from swallowing water that is contaminated or food that has been in contact with the source of pollution. The best-known are those types of diarrhoea and gastroenteritis caused by bacteria, viruses or parasites—cholera and typhoid (salmonellosis), bacillary dysentery (shigellosis), other types of diarrhoea (colibacillosis), viral gastroenteritis, amoebiasis and lamblia-sis. The disease that is most water dependent is dracontiasis, caused by the Guinea-worm, a tiny crustacean that puts the populations of whole villages in India and West Africa out of action for months. And let us not forget hepatitis A, poliomyelitis or leptospirosis which are carried in waste water and contaminate drinking water and food. Lastly, this group includes chemical and mineral pollutants, most importantly nitrates (of anthropic origin), lead (which causes chronic lead

poisoning, linked to methods of storage and distribution), arsenic (in some mining areas) and, when it is in excessive quantities, fluor (endemic in Yemen, China and Central Asia, in the East African Rift, in Argentina and in Mexico).

Certain forms of diarrhoea are the best way of measuring the effect of environmental improvements. The classic ones are cholera, typhoid and shigellosis. The incidence of other forms seem less dependent on the quality of water. All water-drainage combination projects have reduced the incidence of diarrhoea, although proportions vary according to local circumstances that are independent of the quality of the water distributed. The number of cases will decrease less when the source of supply is more than 30 m away from the dwelling, i.e. when the water has to be carried and stored. The effect is correspondingly greater when the socio-economic level of the target population is higher and it is very much greater when the water-drainage programme is combined with other health measures and especially if it is an integrated part of a successful primary health programme or a drive to develop education for women.

The clearest, fastest results brought about by improving water supply standards have been achieved with Guinea-worm. Building wells with rims around them and preventing people from contaminating the water with their feet, or just straining water through a cloth interferes with the parasite's life-cycle. Seasonal treatment with Temephos, the authorized insecticide,



Water quality poses more complex problems in tropical climates than in temperate ones, since the higher temperatures cause germs to multiply more quickly

DOSSIER

ticide for water (1 mg per litre) will also kill the intermediary host to the parasite. India, where more than 12 million people were exposed to dracunculiasis, embarked on a decade-long Guinea-worm eradication programme in 1980. Côte d'Ivoire's improved village well programme has recently reduced the prevalence of Guinea-worm—1%, down from 30%, of the population in the Dimbokro region, for example, are now exposed.

(c) Then there are water-related diseases of which bilharzia is a typical example. A water supply programme can cut the incidence of these diseases, although it will not contain them entirely. It reduces the opportunity for women to be infected while doing such household tasks as fetching water and doing the washing, but it will probably not help at all with the children, who think bathing is a game, or with any infection tied to agricultural work (in the rice paddies, for example). These diseases are better controlled by proper drainage in the whole environment than by water control proper.

Indirect effects

It tends to be difficult to evaluate the direct effect of a water supply programme, either because there is no medical infrastructure through which to do so or because data on the pre-programme situation were never gathered. In this case, indirect effects, such as mortality, are the stuff of evaluation.

Diarrhoea kills. In most of tropical Africa, it is the second cause, behind malaria, of death in children under a year and the third cause, behind measles and malaria, of death in the 1-9 age group. Between 10% and 20% of infant deaths are caused by diseases linked to polluted water, so the indi-

rect effects of a water supply improvement programme can be assessed by referring to the infant mortality figures. However, the need to have a large number of cases for a reliable analysis means working with a time-scale of several years. All the factors of mortality have to be analysed before the responsibility of water alone can be determined. Changes in population composition, economic progress, better food and housing and better educational coverage often go hand in hand with improved access to water. In urban Brazil, for example, mortality in the under-threes dropped by 27% between 1970 and 1976 and a study has shown that one fifth of this reduction was due to the families having been giving drinking water supplies.

A further indirect effect of the water-drainage schemes is to establish synergy of health programmes and development schemes in general. Water is a priority demand. Supply programmes are popular and well-received and their success is directly related to the degree of local involvement, as the communities themselves have to take over the running and maintenance of the system. As a spin-off, these programmes always make for greater community participation in other development schemes of less obvious interest. When they are combined with the introduction of a primary health care system, indirect benefits accrue. In the Kisantu area of Lower Zaïre, for example, there was a change in the way the health service was used in the villages when people were invited to take part in a water and drainage programme. The average number of consultations rose from 1.6 to 3.3 per inhabitant in two years and attendance at vaccination sessions went from 69% to 83%. TB tracing and treatment improved and the number of people wanting treatment for

malaria also dropped significantly. These changes, which have no direct connexion with the improved quality of the water, reflect the fact that the educational message gets across better when a community is involved in an issue as vital as water. The effect of an improvement in the quality of the water supplies depends on associated changes in behaviour and they are difficult to obtain outside a much broader social and economic development programme.

Conclusion

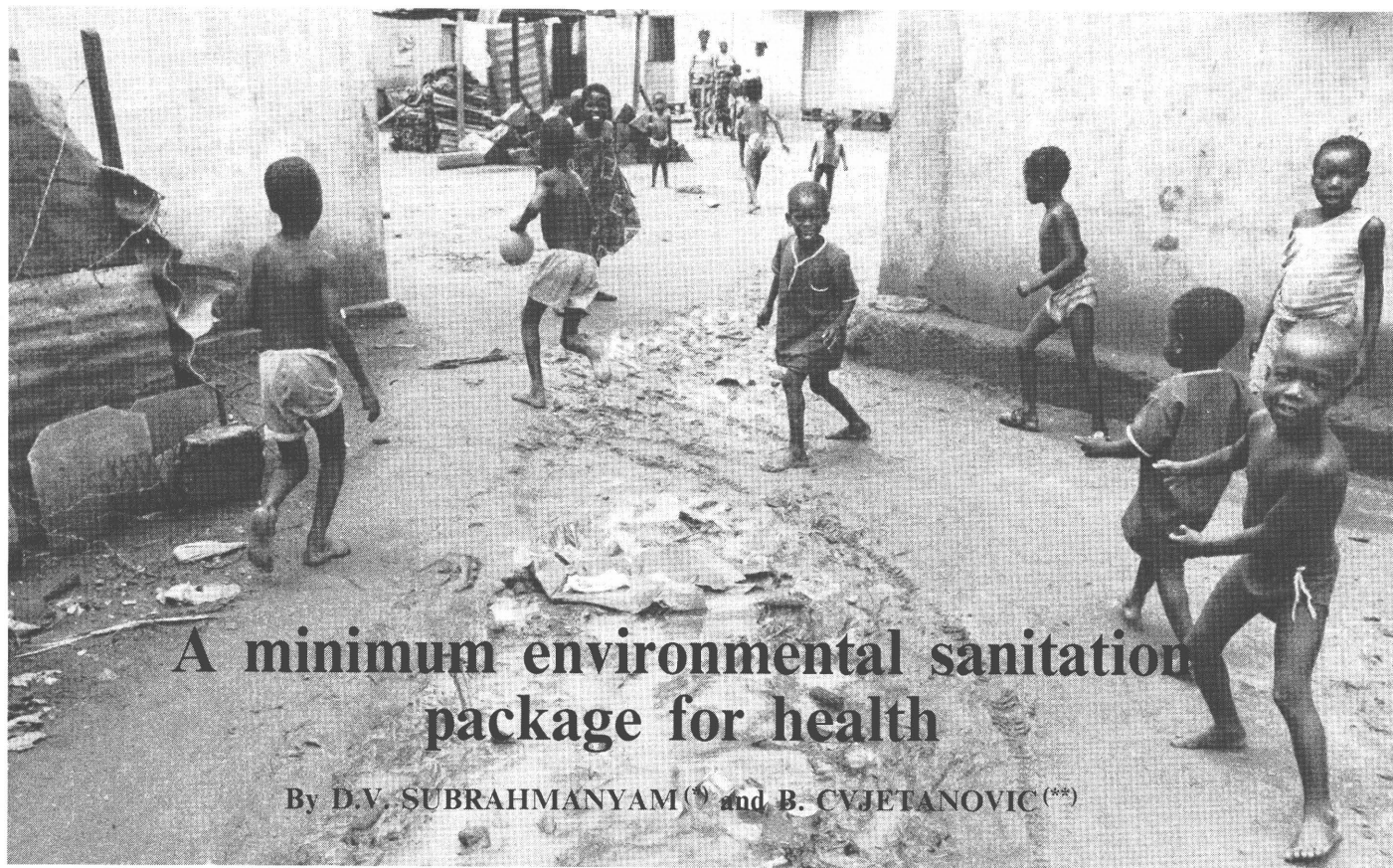
Our analysis goes beyond a simple evaluation of the effect water can have and edges towards the anticipated or observed benefits attendant on an improvement programme. It is an as-yet largely unexplored field of research. There are cash benefits—consumption of certain kinds of medical and pharmaceutical products is cut, productivity improves, temporary sick leave is shorter and less frequent, mortality is reduced and there are more man-years at the service of the community as a result, while there is the economic and social benefit of women being liberated for other tasks. There is also the psychological and cultural benefit to be derived from meeting a priority demand. This proves that progress is possible and that the future is not predestined to be like the past. Supplying water is one of the keys to development and one which has the greatest psychological benefits.

So it is good to know that hundreds of millions of men have had easier access to decent water since 1980. We can only measure the benefits to health on a piecemeal basis so far, either because records have not been kept or because there are other things in the environment preventing maximum impact. But benefits to health are only a tiny part of the real impact and they will increase through interaction with other development schemes which could never have taken place had water not been improved first. And it is also good to see that the associated and often minimal investments made in health education and drainage and, more generally, in the treatment on offer (primary health care) are the only real guarantee of the success of investments made to improve access to decent water. ○ A.P.

Pitiful procession of sufferers from river-blindness



WHO



A minimum environmental sanitation package for health

By D.V. SUBRAHMANYAM^(*) and B. CVJETANOVIC^(**)

A large number of countries have prepared water supply and sanitation plans and are implementing them. Many traditional problems and constraints, however, remain. Progress has barely kept pace with population growth in some countries. The situation regarding excreta disposal is serious. The percentage of people having access to adequate excreta disposal has actually decreased in some countries, since the Decade began.

The preoccupation with coverage (that is, number of people served) has masked an important aspect — that of functioning and utilization. Many facilities do not function. Even when they do, everyone with access to them does not use them. Targets, are of course needed in any Plan, but targetmania can be self-defeating.

Water and sanitation are basic needs, important components in infrastructure development, essential elements for spreading social equity; but above all, one must admit that water and sanitation are fundamental for human health, and this is a major goal of the Decade. Reaching physical targets

by the year 1990 will mean nothing, if there is no health benefit. If the right actions (what), and the right approaches and strategies and tactics (how) can be set down and implemented, then, no matter whether the goal will be reached in the year 2000 or even a decade later, it becomes worthwhile to carry on, without despairing.

Minimum package

Although the degree of the effectiveness of sanitary measures in decreasing the incidence of disease and increasing the positive health aspects could be determined in various studies, the results cannot be generalized as they depend on behavioural factors and environmental and social conditions.

Environmental sanitation in real life is always a package of activities, with safe water and safe food encouraging personal hygiene and healthy habits such as washing with soap, which, in turn, involves education. The cleanliness of the house and surroundings cannot be ensured without proper disposal of excreta and other domestic wastes. Both factors — sanitary facilities and involvement of the community — are the essence of a successful environmental sanitation programme.

In other words, as has been said often, environmental sanitation is more than drinking water supply or even water supply *plus* excreta disposal! To achieve maximum health impact, other measures must be part of the package which will itself need to be related to other health interventions, such as those to improve nutrition and maternal and child health care.

A minimum package for environmental sanitation must include all those measures by which the daily life of an individual, or of a family, is made compatible with what one might call hygiene. These measures as a minimum include:

- drinking water supply; adequate, safe, available and accessible;

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- excreta disposal; sanitary, contained, and socially acceptable;
- safe food, hygienically produced, handled, stored and prepared;
- premises sanitation; to control disease vectors and assure healthy surroundings;
- health education; to influence health behaviour of individuals and families and to help mobilize local money for programmes and increase participation.

Requirements and impacts

When water quantity and accessibility are improved beyond the minimum requirements for drinking, washing, bathing and cooking, water becomes available for additional uses such as horticulture, micro-agriculture and recreation. The improvement in general cleanliness through sanitary latrines and premises sanitation (sanitary disposal of animal and other domestic wastes and drainage) lends support to the economy and to social progress. The enhancement of food production due to improved horticulture, animal husbandry; the availability of water for cottage industry, tourism and agricultural marketing; all these tend to improve the general economy of the village, and make additional resources available for the improvement of health. These are the indirect benefits.

In areas where schistosomiasis is endemic, an accepted component in the control strategy is safe water in adequate quantities for drinking, cooking, washing and recreation, and sanitation. The health-cum-economic benefits from control of schistosomiasis can be quite high.

It is equally accepted that contaminated foods, especially those which are contaminated with micro-organisms and parasites, play an important role in the epidemiology of diarrhoea and malnutrition. There are many factors affecting the safety of food, such as the food systems, socio-cultural factors, food chain technology including domestic food growing, handling, storage and preparation, ecological factors, nutritional aspects and others.

Several of these factors are beyond the influence of individual communities, families and persons. However, for the prevention of foodborne diseases, the "food safety behaviour" of

individuals, families and communities, may be the decisive contributing factor; people's problems and appropriate modes of intervention vary from country to country; the biological and environmental determinants of foodborne diseases are not limited by natural boundaries or socio-economic development. The prevention and control of these diseases will always require that (i) contamination is avoided or minimized, (ii) the contaminants be destroyed or denatured, and (iii) the spread or multiplication of the contaminants be prevented. The contribution of the other elements of the package to food safety and vice-versa is, thus, obvious. But the key to success is in the home; for instance, food needs to be covered from flies and safe water must be available in the kitchen. Food kept too long in the house allows the pathogens to multiply. Above all, education of food processors, handlers and the consumer.

Domestic flies, fleas, cockroaches, rats, mosquitoes, and other domestic pests are all vectors of disease. They must be controlled. Without a suitable environment to rest and hide, they cannot reproduce. Above all, they need to feed. The environment that helps breeding is dark corners, cracks, garbage dumped without attention, and stagnant water (in the case of insects). Their food supply is often human organic wastes. Thus, the prevention of access to stored food or food wastes is an effective way of controlling such pests. Closing tight containers of water, and draining away rain water or all water in old bins, cans and ditches, is an effective anti-mosquito breeding measure. These measures are part of good housekeeping. Every culture has the equivalent to the phrase "Cleanliness is next to godliness". Such cleanliness has a sound epidemiological base, makes for good economy, and is an important adjunct to safe water supply and sanitation.

Education concerning prevailing health problems and methods of identifying, preventing and controlling them is an essential element of primary health care (just as safe water supply and sanitation are) precisely because no health-promoting activity can be sustained in any community without such education. Many environmental sanitation projects have

failed, as no educational measures were undertaken before, during and (follow-up) after the physical facilities were promoted or installed. The education should cover *all* the prevailing health problems in the area.

In almost all developing countries, the health authorities are aware of the common health problems related to poor environmental sanitation and the education needed concerning them. They should have no difficulty in preparing a simple list of health-promoting practices tailored to the local situation, and aimed at children, schools, individuals, families and the community.

A phased development strategy

From the elements of the minimum package, it is really water supply which is capital- and hardware-intensive. All resources will get consumed here with nothing left for the other elements, if appropriate technologies, levels of service and implementation strategies are not adopted for water supply. Water supply should be phased, so that the other elements can be implemented together. The other elements of the package are essentially "software" — (that is, dealing with education, motivation, change of habits). The strategy must be that none of the other elements be left out! They must be parts of *one* pack of cards.

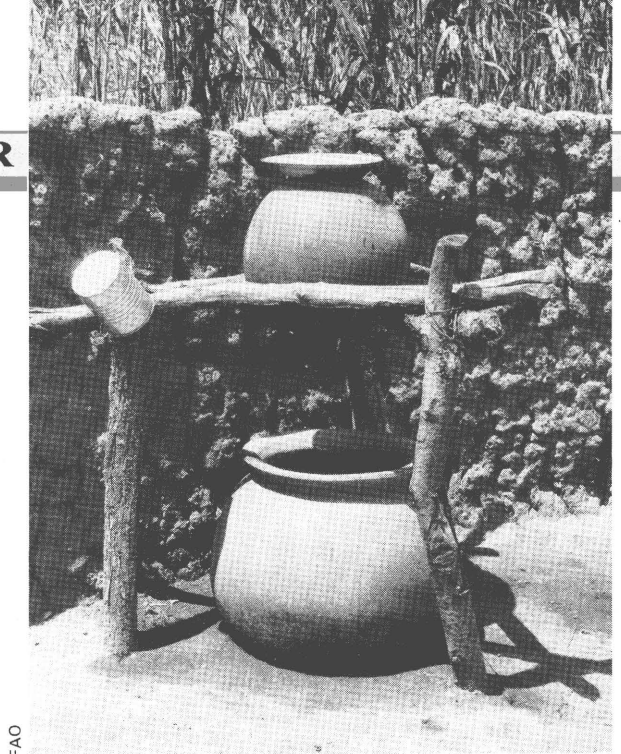
Water quality for domestic consumption should, as a minimum, be protected from biological contamination and be of acceptable quality aesthetically. Even a minimum "life-line" level of service should be reliable. Water quantity and access are more amenable to phasing in successive plan periods.

Simple technologies for water supply and excreta disposal are available and will allow for the saving of money. The crucial elements of the strategy are however in education, training, cooperative assistance and follow-up, with the strength of the organization lying at the community level. For instance, top heavy centralized implementation of latrine installation programmes have always failed. Community education (on health-promoting practices), and participation is perhaps the most important of the strategies in environmental sanitation, and the least practised. ○ D.V.S. and B.C.

Drinking water at least cost

By Dick de JONG and Ebbo HOFKES^(*)

It's not enough just to have plentiful supplies of water. People need easy and hygienic access to it. Pumping and filtering are two of the methods which are dealt with in this article.



Local filtering system in Burkina Faso

A close look at the performance of the Water and Sanitation Decade shows that, especially for people in rural areas, progress has to be accelerated. In Africa, with investments in the sector at just over one third of the target level, the numbers of people connected to water supplies in recent years have barely kept pace with population growth. Sanitation provision has certainly not kept pace. In Asia the situation looks better, but still requires a strong effort.

The figures tend to concentrate on the number of pumps, taps or latrines installed. Many politicians and water engineers may still think there is more prestige to be gained from bringing in a new water supply than from ensuring that an existing one continues to work. However, it is increasingly emphasized that new facilities should function properly in order to be used by their beneficiaries. The present scarcity of development resources and aid funds contributes to the current trend of stressing the need for the rehabilitation of existing, unsatisfactory facilities, while selection of low-cost and more appropriate technology for new supplies is equally important.

Higher levels of service, like individual house connections, are not realistically possible for the great majority of the rural populations. The main reason is the high cost involved. Instead they should hope that politicians and national water agencies should take the existing water sources as the

basis for their policy. Improvement of existing springs and dug wells is likely to be cost-effective and can have a very positive effect on water quality and quantity. Rainwater collection at household level also may prove useful where dispersed populations are to be served.

One of the simplest and least costly methods of water supply, where groundwater is available, is the communal handpump, installed in dug wells or boreholes. When surface water is the main source of supply some sort of treatment will usually be required.

Handpump programmes

Handpumps can be quite suitable for supplying the relatively small amounts of water needed for drinking and domestic water supply. In many developing countries, there are handpump programmes for the installation of considerable numbers of pumps. These programmes should include all the related activities, such as community participation and health education, that are necessary for the effective use and functioning of the pumps. The more these programmes are an integrated set of activities, rather than a series of small projects involving the installation of a single pump, the higher the impact will be.

An effective handpump programme provides not simply pumps, but rather is an integrated process of technology, people and agencies. Such a programme should cover all the elements necessary to implement it, including

active involvement of the beneficiary communities, the choice of pump, mobilization of financial resources, organizational and institutional arrangements, procurement, installation, and maintenance. In the programme approach, technical decisions often have to be subordinated to organizational, logistical, and other considerations. For example, the number of different types or models of pump should be kept to a minimum in order to reduce supply and maintenance problems. Community involvement assumes a much greater significance in handpump programmes than in urban water supply projects. Health education is often an element of a handpump programme. Manpower development and training are essential, as are adequate provisions for maintenance.

Handpumps for use in programmes should either be selected carefully from existing pump models, or specially designed. The current trend in these programmes is towards community-based maintenance systems, and therefore the pumps should be so selected that a considerable part of the maintenance tasks can be done by the community.

Use of plastics in handpumps can have considerable advantages. In many developing countries, plastic components and parts of pumps can be produced locally. Substitution of plastic pipe for the steel or cast iron pipe conventionally used, reduces the weight considerably and also leads to substantial cost savings.

Research and development work is

^(*) International Reference Centre for Community Water Supply and Sanitation.

being carried out to improve hand-pump designs and to develop new components and parts for pumps, including cylinders, plunger assemblies and valves. Proper installation of handpumps is essential if they are to give reliable and long-lasting service to the users. The quality of construction of the well or borehole is important for adequate water yield and satisfactory pump performance.

Four stages can be distinguished concerning the installation of handpumps: site selection; construction and development of the well; installation of the pump itself; and construction of the apron.

Water supplies from surface sources

Water from surface sources, such as rivers, streams, canals and lakes, is hazardous to human health, unless properly treated. Many treatment processes require mechanical equipment, chemicals, electric power supply, and skilled operators. These requirements are often extremely difficult to provide for small and medium-sized water supply installations, particularly in rural areas.

Slow sand filtration is one of the most simple and reliable water treatment processes. Eight years of re-

search, testing, and pilot demonstration in IRC's Slow Sand Filtration Project carried out in collaboration with national institutions in six developing countries have conclusively shown that this water treatment method is both effective and particularly suited to use in rural community water supply systems. Operation of slow sand filters is simple, no chemical dosing is required, mechanical equipment is limited, and maintenance can be carried out by unskilled local labour. Cost of construction, as well as running costs, are generally lower than those of treatment plant using other processes.

The water being treated in a slow sand filter percolates slowly through the filter bed of fine sand. The water remains for several hours in the bed, and the quality is greatly improved by a combination of processes, such as biological breakdown and bio-chemical conversion of impurities, absorption, and sedimentation.

Slow sand filters are particularly effective in removing micro-organisms from the raw water, including those bacteria, viruses, protozoa and helminths that can cause disease. The overall bacterial content of the water is reduced by a factor of 1 000 to 10 000 and coliform bacteria by a factor of 100 to 1 000. In a matured slow

sand filter, viruses are largely removed. The same applies for virtually all protozoa and helminths.

Thus, when processing water which is not excessively polluted with bacteria and other micro-organisms, slow sand filters will produce water that is bacteriologically safe. This is particularly important for small water supply installations in rural areas where chlorination practice is rarely reliable

In close co-operation with the UN agencies in the Steering Committee for Cooperative Action for the Decade, IRC contributes through collection, generation and transfer of selected and consolidated information to the various participants in the sector. The need for practical and relevant information in the field is enormous. Each year thousands of requests for publications and for specific information reach IRC, mainly from developing countries.

Publications and reference materials on a range of technical and non-technical subjects, a regular newsletter and a request-handling service serve a wide category of individuals and institutions in more than 100 countries. IRC also stimulates and contributes to the development of national information capacities. In this respect the development of information exchange and dissemination activities are encouraged.

IRC's other information generation and transfer mechanisms assist more in-depth knowledge transfer in a few countries.

Demonstration projects on slow sand filtration and public standpost water supplies are generating new information and promote new approaches by developing countries. National staff in Colombia, India, Indonesia, Malawi, Sri Lanka, Sudan and Zambia play a key role in these projects.

IRC's contribution to human resources development (e.g. training courses) and delivery of ad hoc advisory services in cooperation with agencies, completes the IRC information service package. For more information please write to IRC, P.O. Box 93190, 2509 AD The Hague, The Netherlands.



Vivian Univers

In the Sahel (here in Mauritania), water, a very precious commodity, is often kept in goatskins

enough to safeguard the bacteriological safety of the water supplied. Slow sand filters are also effective in removing suspended solids and organic impurities from the raw water, if its turbidity is not too high. Operating as a single treatment unit, without any pre-treatment of the raw water, incoming water with an average turbidity of less than 20 NTU can be effectively purified, provided peak turbidities are below 50 NTU and occur only over periods of a few weeks. Higher turbidities of 100 to 200 NTU can be tolerated only for a few days. Thus, when high turbidities are expected in the raw water over longer periods, some form of pre-treatment is required, such as river bed filtration, horizontal roughing filtration, or sedimentation.

Slow sand filtration plant is simple in construction, using locally available building materials and labour. Little special pipework, equipment or instrumentation is required and the need to import any such equipment is virtually negligible.

The plant is simple to operate and maintain. Operators selected locally from the community to be served are generally able to run the plant after a short period of training.

Integrated approach

The scope and magnitude and the mix in service levels of the rural water supply programme will vary for each country, region and for different types of community. But whatever the size and extent, a number of major issues

emerge from IRC's analysis of relevant information and experience, which will decide whether water supply and sanitation programmes and projects will be effective. These are:

- integration of the technical, operational, financial and health issues right from the start of the planning process;
- participation of the community in all project phases, with special attention to the role women play and should play in community water supply and sanitation;
- as much local organization of maintenance as possible, and local production of equipment.
- institutional development combined with human resources development at all levels in the sector. ○

D.d.J. and E.H.

The EDF and drinking water

One of the objectives of Lomé III is "improving the living standards and conditions and the lifestyles of the... populations" (Article 12). This is to say that, even more than in the past, water supply and sanitation projects, which have such an impact on peoples' health and wellbeing, are high on the list of priorities for Community aid. The

EDF has always financed such projects. The table below gives an idea of Community financing of water supply and sanitation projects financed under Lomé I and II, but it is only an idea. This is because a number of projects with a "water supply" or "sanitation" component do not appear on the list.

In 1979 the Commission carried out an "ex post" evaluation of rural and urban water supply projects (see article on following page) which has led to the adoption by ACP and EEC experts of guiding principles to be used in the design and implementation of projects in the future.

Situation of decisions, commitments and payments as of 29 November 1985

Description	Number of projects	Amount approved (in ECU) (1)	Amount committed (in ECU) (2)	Amount paid (in ECU) (3)	% comm. (2/1)	% paid (3/1)
Fund 4th EDF						
Water eng./Urban devt. — general	14	12 384 314.70	12 251 523.65	11 429 017.23	98.90	92.20
Village water engineering	36	48 283 051.83	47 319 069.44	41 641 210.87	98.00	86.20
Water supply	26	20 754 206.99	20 659 127.92	18 023 807.65	99.50	86.80
Urban drainage	11	14 855 865.62	13 730 924.08	13 585 680.83	92.40	91.40
Urban development	15	16 615 140.42	15 523 145.09	12 267 589.42	93.40	73.80
Total fund 4th EDF	102	112 892 579.56	109 483 790.18	96 947 306.00	96.90	85.80
Fund 5th EDF						
Water eng./Urban devt. — general	11	65 840 552.33	51 430 282.52	39 525 105.00	78.10	60.00
Village water engineering	39	90 694 197.91	63 992 499.08	43 951 209.92	70.50	48.40
Water supply	25	50 085 132.09	26 892 666.80	11 841 242.38	53.60	23.60
Urban drainage	7	12 758 850.00	10 118 514.24	5 158 872.24	79.30	40.30
Urban development	5	7 645 000.00	4 664 339.83	3 192 305.55	61.00	41.70
Total fund 5th EDF	87	227 023 732.33	157 098 302.47	103 658 735.09	69.10	45.60

Evaluating water supply projects

By Helmut EGGERS^(*)

"Wonderful", he said, like a child looking at a Christmas tree. "See how lovely it is!"

Father V. and I were sitting either side of a rough-hewn table in his shabby office in San (Mali) goodness knows how many years ago. There was an odd glass device on the table. It was powered by an old car battery and held some viscous, blue-tinted liquid which it shook rhythmically backwards and forwards like the tireless waves of a limpid sea reflecting the bright rays of the sun. It was a prototype of what in my language would be called the by the untranslatable name of *kitsch*. I did not have the heart to tell him as much, as he seemed so happy and so far away from the heat and dust around us.

"Yes, it's lovely", I heard myself say. "It's living water, *aqua viva*, a real symbol of what you are doing here in this country."

It was Father V. who gave me a practical approach to the scriptures. "There's no point in giving spiritual nourishment to people with empty stomachs", he said. "You have to start by giving them something to eat and drink—especially drink". And that is what this pillar of the church has spent 30 years, his fortune, his strength and his whole life doing. I feel like an anonymous, colourless, flimsy bureaucrat in comparison with this man who inspires me with profound respect and boundless admiration.

Mali Aqua Viva (MAV), which has sunk almost 1500 boreholes and installed almost 1000 mechanical pumps within a 75 km radius of San, was set up by Father V. in 1974. It has been providing solar pumps, about 30 of them, since 1977 too. The organization got off the ground with co-financing from a whole series of NGOs, and, since 1980, the Malian Government and the French CCCE have added their contributions to those of Father V. and his family and given fresh impetus to a scheme that has now become a major development operation.

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MAV is planning on 1700 boreholes—which will mean 900 villages and a population of 350 000 people will have been reached—by 1991.

The EEC contribution to this major undertaking was modest—co-financing with the French NGO SOS Sahel International, worth FF 1.8 million, which was put towards 10 solar pumps costing a total of FF 2.4 million. This was the project which was included in a Commission-run evaluation (of 35 small projects all over the world) aimed at drawing conclusions that would help improve micro-projects and co-financing with the NGOs. In the case of Mali Aqua Viva, the idea was to arrive at a value judgement not only of the relatively small part of the operation that was co-funded by the Community (the 10 solar pumps) but of the whole scheme, without which the Community part would be pointless.

Pertinent principles

For a start, it is clear, as evaluation has stressed, that the benefits to the population of plentiful supplies of unpolluted water are incalculable. Wells are in constant use. Small gardens are springing up and the peasants are growing vegetables with irrigation water provided by Aqua Viva. The wellbeing and the health of the people in the project zone have improved considerably. Isn't that enough? Even as far as the person doing the evaluation is concerned? No it isn't, for that is not all he is concerned with.

Is it enough for the people who now have water from Aqua Viva to be happy? What will happen once the external financing peters out? Which Malian body will take the project over then? Father V. says he is not immortal, although he is so alive that I find this difficult to believe. But all men are mortal and Father V. is a man, therefore he must be mortal too.

Two years ago, the village contributions reached 2% or 3% of the amount needed to ensure that the solar pump project would be viable once the financing comes to an end. They have just been increased, but in spite



of the considerable sacrifices the villagers are already being asked to make, the figure still does not go above 20%. What about the other 80%? Where will that come from when the project is completed and the pumps still have to be maintained and one day replaced? Is this a viable project?

The questions the evaluator has to raise are bothersome and it would be easier if he did not raise them. But it would be dishonest not to.

We, the evaluators, have tried to come up with conclusions and recommendations reflecting a fairly impressive degree of collective wisdom by formulating fundamental principles for each major sector (public health projects, road projects, agro-industrial schemes, irrigation etc.) and development instrument (technical assistance, trade promotion etc.) as a basis for raising and finding answers to question during evaluation. Those for drinking water supplies in town and country areas date back to 1979, but they are, I think, still just as relevant and important as they ever were—which is comforting.

But it is worrying too. For what have we learnt from experience if principles laid down in 1979 are still totally pertinent? Let us take a look at one or two of these fundamental principles that express collective wisdom in the matter of water supplies.

First of all, each project must be part of a national water policy. This

seems obvious but it is something that is so often overlooked that recently, at the beginning of December 1985 even, the OECD in Paris felt it needed emphasizing and brought out a short paper summing up the conclusions and recommendations of broad consultation in the Development Assistance Committee (DAC). Do EEC-financed schemes really offer practical support for sound, well-designed sectoral operations in the water supply sector? Does the Aqua Viva Scheme do so?

It was then realized that strict coordination of national organizations and funders was vital. Have we achieved it? If we have to ask, then the answer must be no.

Experience has shown, as the fundamental principles emphasize, that project design should never be confined to creating facilities. Projects have to be devised as a network of schemes that provide each other with support and strength, so the institutional structures that will take over the completed project have to be strengthened and



Villagers must organize themselves to run the water point on a collective basis

the local people have to be involved in designing, implementing, operating and maintaining the facilities. Where does Aqua Viva stand in all this?

An exemplary scheme. Although the EEC has only made a very small contribution to the financing of this Malian scheme, it was the only external funder of the village water operation for the rural population of Yatenga, in Burkina Faso, which dates from 1985. The idea here is to sink 280 wells and boreholes in addition to the 400 provided previously by a 1981 EDF project in the same area.

It includes the work itself, the provision of equipment, continuation of the drive to make the locals aware of the situation (this was started under the previous project) and training for repairmen and members of the water-point committees.

The promoters of this scheme have been very concerned with applying the fundamental principles.

So the villages in question will be rigorously short-listed, in the light of inventories of water resources, with the help of the provincial and villagers authorities. The peasants themselves will then decide whether they want an open well or a borehole and hand-pump. It will then be up to the villages to get organized and manage their water point on a collective basis (the accountants and managers required for this will be given training) and the hydro-geologist and the committee will

not take their joint decision actually to carry out the work until the organization and training has been completed.

A maintenance system has to be established alongside. The villager in charge of the pump will do the ordinary maintenance while bigger jobs will be done by a repairman. Both of these are to be trained by the project. Spare parts are supplied by a local tradesman who obtains them from the supplier via the importer.

None of this is mere theory, we hope, as our data was collected during evaluation of Phase One of the project.

Technically speaking, the pumps are reliable and, in spite of intensive use, only 30% have needed any repair. The annual cost per pump is around CFAF 17 000, which the villagers find fairly easy to raise, especially since they now no longer have to use their traditional means of extracting water. The repairmen are working well and the users think their prices are right. Supplies of spare parts, particularly those that need changing often, have not always been available, however, so contact between the maker and the importer should be tighter.

National management is now fully responsible for managing the technical assistance.

This project in Burkina Faso is a very good example and one which should serve to help schemes that cur-



Establishing a water point in the Segouana zone of Burkina Faso. "The promoters of this scheme were very concerned with applying the fundamental principles"



Scenes like this, alas only too common still, ought to disappear altogether

rently seem less viable. Take SOS Sahel, for example, an NGO-cofinanced project which provided 60 pumps for existing water points. The evaluator found that 31 out of 43 pumps inspected were not working because they had been mounted on wells that were drying up or already dry. And the work to prevent silting had been a success in only 14 of the 43 cases...

What is the point of analysing a project to mechanize wells that have already dried up? It reminds me of Napoleon's brusque interruption of the officer who wanted to tell him why his attack on the enemy had failed and who started by saying that his riflemen had no ammunition. "Get out", the Emperor snapped, "I don't care about your other reasons!"

Learning from mistakes

Let us get back to our water resources. It is not just the people in villages who are thirsty and it is not just the As who are the ACPs.

Antigua, in the Caribbean, is the site of an EDF-financed project (1979) to improve water supplies in the North Shore area.

It involved laying an urban supply system and was paid for with a special

loan. The recipients were the then future inhabitants of 300 low-cost dwellings, eight tourist hotels (750 rooms) and the expanding industrial zone by the airport. The equipment, including modern, higher-capacity pipes, cost ECU 430 000 and the work about ECU 100 000.

The evaluators found that the project did indeed make for a substantial improvement in the drinking water situation on an island that has always had problems in this field.

The plan for 300 low-rental dwellings, however, was not ultimately implemented, as property speculation was intensifying and land prices soaring, and the social aims of the project were therefore unable to be achieved.

In spite of this, the project will still be a help if its institutional and economic viability, two things that emerge as being particularly important in the fundamental principles, can be assured.

Institutionally speaking, the evaluator's conclusions are reassuring. The water board of the Antigua Public Utilities Authority (APUA), a semi-state organization, has matured in its 13 years of existence and has skilled staff who get periodic retraining.

Water rates are another matter. APUA has of course laid down prices that are compatible with the proper operation and maintenance of the network. But they reflect the high costs attendant on local constraints and they have now reached the point where the hotels are actively considering setting up their own desalination units, something which APUA views with concern.

So the evaluator may find a considerable discrepancy between the fundamental principles and the actual situation in the field. Have we learnt from our experience? Ultimately, yes, I think we have.

There is a long way to go, of course. We are covering the ground gradually. If we keep our eyes open and our approach rational, I think we should continue to make progress and learn from our mistakes as well as our successes.

I do not believe and I do not in any case hope that I shall ever again hear what a peasant from the Sahel said to me 15 years ago. I had asked him why the villagers did not want to deepen a well that had run dry. "Can't touch that", he said. "That's a UNICEF well". He might have spoken with the same "reverence" of EDF wells... o

H.E.

Urban drainage: the Dakar Canal de la Gueule Tapée (*)



Dakar has a double drainage system—two separate networks for waste and storm water—but it does not work properly because:

- the present networks do not cover the whole of the urban area;
- some parts are old and in bad repair;
- in many districts, people are not linked to the drainage system and they throw waste water into the open channels intended for storm water.

This worrying situation has led the Government of Senegal to come up with a master plan for a water supply and waste/storm water drainage system for the town and the surrounding area.

An early stage of the programme was part of a 4th EDF project (the Soumbédioune Bay Drainage Scheme) which was run between 1978 and 1981 with the idea of reducing pollution along the coast by Soumbédioune and University districts by dumping waste water from the existing networks into the ocean via an undersea collector pipe.

The Canal de la Gueule Tapée part of this project was put off to a later stage — which is being run, with 5th EDF financing, at the moment. The aim is to change the combined collection system so that it still copes with the original job of disposing of storm water, but channels waste water through two long collector channels to the Soumbédioune pumping station.

(*) Article provided by the Delegation of the Commission of the European Communities, Senegal.

In the rainy season, runoff from a 152 hectare basin drains into the Canal de la Gueule Tapée. Sewage connexions are inadequate, people throw all kinds of rubbish and liquid effluent into this open waterway and in the dry season it is filled with solid waste, but very little water, from the 65 000 inhabitants of Médina and Soumbédioune. The present capacity of the canal is far too small for storm water and it overflows in the rainy season and floods hundreds of dwellings, making it impossible to get about. In the dry season (9 months of the year) it is a tip for smelly rubbish, which is very difficult to collect.

The area around the Soumbédioune fishing port is considered to be one of the most polluted in Dakar and one of the most disease-ridden (typhoid, paratyphoid, dysentery, amoebiasis, anthrax and TB all thrive there).

The work, which began in February last year and should be completed in late 1986, mainly involves demolishing existing installations (the canal and various networks), rebuilding a channel big enough to cope with the ten-yearly high storm water level and two collectors to take the waste water to the existing pumping station in Soumbédioune, rehabilitating the walkways and other networks and improving the sewage system by repairing private connexions which are in poor repair or were badly built in the first place. It will cost an estimated ECU 4 million.

The plan includes supplying a pump truck to clear out small pipes in the

Soumbédioune and University districts first and then in the oldest districts of Dakar. This will cost ECU 150 000.

Technical assistance has been provided at the Directorate for Drainage which is in charge of the project. The team comprises a civil engineer and a specialist in electromechanics. National staff are attached to the supervisory team (ECU 350 000). This makes the current EDF contribution ECU 4.5 m and this along with the first scheme brings the total EEC contribution to this fundamental operation—an absolute priority if the standard of living in the capital is to be improved—to ECU 8.25 m (1978-86).

Once the work has been completed, storm water can be taken from Médina and Soumbédioune and there will be a rational two-tier system whereby storm water is piped to the sea through a covered channel and waste water is drained away down two buried sewage pipes linked to the existing network.

The Soumbédioune pumping station will operate in the usual way by channelling all the waste water from Médina and Soumbédioune to the marine outlet.

Socially speaking, this is a very important project. The 65 000 inhabitants of the districts served by the Canal de la Gueule Tapée are already beginning to benefit from the considerable improvement in their living conditions. The present problems, the flooding and the unpleasant smells, will disappear and improved hygiene will do a lot to contain the epidemics and infectious diseases from contact with polluted water and solid effluent mentioned earlier. The poorest households will be able to be connected to the sewage system on particularly favourable terms, as the project is paying for the work needed on the junctions.

And lastly, the effects of the project will be heightened by the continuing drive to make the urban population aware of the public health issue which the Ministries of Public Health and the Population, the Dakar authorities and the WHO have launched.

The project is being run by the Drainage Directorate at the Ministry of Hydraulics, where the technical assistance is located. SONEES, which runs the sewage systems (waste water

collection and the covered storm water channels), will be taking over the installations and is already active in some areas.

SONEES will be financed by a sewage tax (CFAF 14 per m³ at the moment) on drinking water consumption

in the towns.

This operation, which is part of a series of measures the Government has taken with a view to an efficient social policy on water and drainage, has gone down very well with the population concerned. ○

Shipping water to Antigua

By Carlton JAMES (*)

The picturesque island of Antigua (area 280 km²) lies in the Eastern Caribbean and is the larger of the two in the twin-island state of Antigua and Barbuda.

Annual rainfall has always been low in Antigua compared with the other islands, which perhaps accounts for the island's popularity as a tourist resort. But even that aspect of Antiguan life and economy was threatened early in 1984.

The rainy season, September-December 1983, produced little rain, and by January 1984 the water situation had become alarming. The majority (estimates put it at 60%) of Antigua's water for household and commercial use is "surface" water collected in catchments or reservoirs. The largest and most important of these is the Potworks Dam. By February of 1984, the level of water in the Potworks Dam was dangerously low, and by April the reservoir was dry. The few groundwater wells in the south of the island could not offset the shortfall in rain water because of their low yields and some problems with maintenance.

The Government declared a national water emergency and requested international support to cover the short-term water requirements of the population, including, of course, hotels and other areas in the tourism sector.

One of the areas from which international support was sought was the European Community, through an approach to the Delegation to Barbados and the Eastern Caribbean. On 17 May 1984, a mere two weeks after the government's application on 1 May,

the Commission approved a grant of ECU 200 000 for emergency relief, primarily towards the cost of transporting water and purchasing 1000-gallon capacity tanks.

Close cooperation with other donors

Other donors to the relief effort were the United States Agency for International Development, the Canadian International Development Agency, and the British Development Division in the Caribbean. The total relief figure was US \$ 478 000. The relief effort reflected close inter-agency cooperation. Under the auspices of the United Nations Development Programme, and with the coordination of the then three-year-old Pan-Caribbean Disaster Preparedness and Prevention Project (another European Communi-

ty co-financed project), the Antigua Public Utilities Authority (APUA) arranged to purchase and transport water by barges from neighbouring islands, Guadeloupe and Dominica.

Thirty 1000-gallon tanks were purchased using European Community funds, and mounted in villages around the island, and the APUA was responsible for distribution under a pre-arranged formula:

- 20% was sold at cost price to commercial customers (mainly hotels)
- 20% was fed into the public water supply network
- 60% was distributed free of charge to individuals in the affected areas.

In some areas, and particularly in the central part of the island, water also had to be kept in concrete containers for livestock, many head of which had died in the fields and pastures prior to the start of the barging operation.

The emergency aid provided by the European Community in cooperation with other donors underlines the willingness of the EEC to collaborate in development efforts. In this case the aid enabled the people of Antigua to obtain water from two sources very close to the island, thereby averting the worst possible consequences of the drought for the human population and the tourist industry. Agriculture and livestock, however, suffered grave damage, and these sectors have still



Farmers tried to build up reserves of water for their animals, but often it was too late

(*) Information officer in the EEC Delegation in Barbados and the Eastern Caribbean.

not recovered from the effects of the drought.

Some positive effects

But there are some positive effects of the 1983-84 drought in Antigua. Hotels are now installing large water tanks, and consideration is being given to installing small desalination plants. The government Physical Planning Unit is moving to ensure compliance with building regulations which stipulate the ratio between size of water tank to be constructed, and roof areas of the building. Through the National Disaster Unit public awareness campaigns are now being aimed at ensuring preparedness for future droughts in an island where the drought cycle is said by meteorologists to be every ten years.

Consultants have suggested medium-term action such as a programme of dam cleaning, well drilling and installation of rain water gauges in the main catchment areas.

A long-term programme should include:

- the development of a comprehensive national water policy, covering agricultural and public water supplies
- a conservation and replanting programme to temper the flow of surface water
- monitoring the quality and level of groundwater, and
- recycling of sewage for irrigation purposes.

Antigua and Barbuda is a Caribbean member of the ACP Group of States.
o C.J.

However, after a few systems were built, the mixture of coconut fibre and cement proved not very reliable since it tended to crack easily. It was subsequently decided to resort to aluminium roofing sheets.

Like all microprojects, this one required the local community's contribution, which took the form of both cash payments and free labour. The government of Tuvalu also helped by providing for supervision of the works, thus bringing the total cost of the project to ECU 570 611. By June 1984 the initial targets were met: all the tanks and the catchment systems had been built, increasing markedly the availability of drinking water throughout the country. On three islands — Nui, Vaitupu and Nukufetau, the water storage capacity has actually doubled. And since people have more water to use in times of normal rainfall, the water contained in the community cisterns can be saved for periods of drought.

The programme has made a real difference to the daily lives of the islanders, especially the women. All the water a family needs for its consumption is there at the tap right beside the house, whenever it is needed. Furthermore, since the tank is covered, the water it contains is clean and free of mosquitoes (indeed a decrease in the number of mosquitoes has been reported). The programme has thus improved the quality of life of the islanders by providing a healthier and safer environment. In its Third Development Plan, covering the 1984-1987 period, the government of Tuvalu has committed itself to further improving water supply and sanitation on the outer islands as well as on Funafuti in accordance with the objectives of the Water and Sanitation Decade. o

Tuvalu: drinking from the rain (*)

It is often difficult to imagine that one could die of thirst amid plentiful water. But this unhappy event could certainly happen to you if you were lost at sea without a provision of drinking water or if you were left on an island deprived of any source of water, as is the case of many of the thousands of islands scattered around the Pacific Ocean. Funafuti, the main island of Tuvalu, one of the newest ACP countries in the Pacific is just such a case.

The ground water on this island, which harbours approximately one third of the archipelago's 9000 inhabitants, is not potable. The brackish water provided by the existing wells is only drunk during periods of severe drought. It is normally used for washing clothes and bathing. All drinking water is obtained from the rains, therefore, and is collected by special roof catchment areas located on communal buildings such as the church, the meeting hall, the schools etc... and stored in large centrally-built communal cisterns from which women and girls collect water by bucket, often spending several hours a day at the task.

Doubling water storage capacity

In 1981, under the Lomé Convention, (4th and 5th EDFs) two micro-projects forming one individual programme were launched with a grant totalling ECU 222 000 to provide 840 households with water-tanks coupled with catchment systems — 690 in all — some houses already having a roof suitable for use as a catchment. The project aimed at providing 80% of those households without a storage system of their own with an individual 1000-gallon tank built in ferro-cement and, where necessary, with a catchment system using a roofing sheet made of coconut fibre and cement.

Increasing water awareness

By Abdou HASSANE (*)

Underdevelopment in the Third World, especially the countries of the CIEH, has very much to do with the

poor technical skills of the people who live there and have to promote development. This is why information and training are so important, especially in the water sector. The UN Conference on water in Mar del Plata in February 1978 and other meetings (the OAU

(*) Based on a report drawn up by the Delegation of the Commission in the Pacific.

(*) Mr Hassane is Secretary-General of the Inter-African Committee for Hydraulic Studies, CIEH.

economic summits, for example) have underlined the need for better water control if we are to ensure self-sufficiency in food, energy independence, industrial promotion and so on.

But how?

The sub-region has many means of doing so. It has the conventional training structures for higher cadres—the various higher educational establishments in the member countries of the CIEH, the Inter-State School for Public Works Engineers (EIER) in Ouagadougou, the National School of Engineering (ENI) in Bamako, the Higher National School of Public Works (ENSTP) in Yamoussoukro, the polytechnics, the universities and so on.

It also has middle management training centres, such as the Inter-State School for Higher Technicians in Water Engineering and Rural Facilities of Kamboinsé (Burkina Faso) and the Agro-Hydro-Meteorology Centre (AGRHYMET), where basic grades are trained and given the information vital to the everyday running of the operations in development organizations and projects.

And then there are the peasants. They are given practical training in village water engineering in short and what are often peripatetic classes and at village meetings called to discuss their problems.

For some time now, these different institutions have been developing adult training and retraining methods with a view to the advanced study of specific aspects of water control. This is currently geared to national managers who are already working in the field and have problems to cope with every day. The Committee's job is to deal with information and training, in the latter case both in conjunction with other specialized institutions and through actions of its own.

The Committee has an information centre with more than 12 000 works of reference on water and related areas and is to become a reference centre for all the member countries. It brings out a periodic list of publications and a bulletin and there is a newsletter as well, in which staff in the field can describe any useful experience in tapping, utilizing and managing water resources. This publication also announces training programmes, semi-

nars and any other events likely to be of interest to the member countries.

The Committee also produces specialized works of which a training manual for village instructors is but one example.

The rural populations which get the benefit of the hydro-agricultural improvements and water supplies find it difficult to cope with the equipment with which they are provided. But they have to be able to manage it themselves, as the states cannot go on paying recurring charges, which is why the people themselves have to be



Train and inform, so as to avoid similar situations

trained to take a proper part in decisions affecting the new installations. This is where this CIEH handbook for instructors training villagers in water engineering comes in. It is in three separate parts.

Managing village water resources. This booklet suggests a method of training that will get the local people involved.

It gives details of water-borne diseases and technical information on measures the villagers should take if they are to manage the village water supply properly and protect their health.

Water points that work properly. This sets out the various natural sources of water, giving particular at-

tention to the water table and how to reach it. It describes several types of water hole and how to sink, maintain and repair them.

Using a water pump. This booklet describes some of the commonest types of water pump and how to carry out the simplest kind of repair.

The method of training is also a function of the targets and it begins by making the villagers aware of what is going on, so from the very beginning they have to take responsibility for their own affairs. This is something that continues throughout the course, with the instructor constantly fostering their involvement.

The booklets are intended for villagers who have or are getting an improved water point. They are particularly useful for people with wells and boreholes fitted with hand pumps.

The idea is to help the instructor do his job. They describe how to get villagers to keep their water points in good repair and draw the sort of water that does not generate disease, and they put forward a learning programme and methods that will achieve this.

The programme involves teaching the villagers to protect themselves against water-borne diseases through better knowledge of them, to keep their water points in good repair and to manage their own resources in the light of their needs.

It provides villagers with the scientific and technical knowledge they currently lack, bringing them new knowledge and know-how in the field of health and drainage.

The Inter-African Committee for Hydraulic Studies (CIEH) is an inter-state organization set up in 1960 to promote technical cooperation between the countries of Africa with a view to constant improvement of knowledge of water resources (prospect, tapping, use and management). It has 12 members from French-speaking Africa (Benin, Burkina Faso, Cameroon, Chad, Congo, Côte d'Ivoire, Gabon, Mali, Mauritania, Niger, Senegal and Togo) but is open to all countries of the continent.

It is particularly concerned with disseminating information and know-how on water. ○ A.H.

Planning water supply in Tanzania

By Dr. Eustace GONDWE (*)

In a majority of African countries, the total rural population makes up a disproportionately large fraction of the total national population. It is not surprising then, that these countries have placed greater emphasis on the development of rural water supply schemes.

Nearly every developing country, in line with the aspirations of the International Drinking Water and Sanitation Decade, has set a target year to supply safe water to all its people from improved sources. The target year for Tanzania is 1991. The available data indicate that a sizeable proportion of the population still obtain their water supply from unimproved sources. According to design criteria in use, the rural population in Tanzania is supposed to enjoy improved water supply from public taps with each public tap serving between 200-400 people.

Accessibility of the water supply point is a good measure of the efficiency of water supply. Data derived from village data of two Tanzanian regions namely Mtwara (Gondwe and Msimbe, 1982) and Morogoro (DHV, 1980) show that only about 20 per cent of the population in the two regions have their potential water sources within a radius of one kilometre. This situation is suspected to be consistent with other countries, particularly in Africa. The radius of reasonable access to the supply point of water is given as 200 metres by the World Health Organization (WHO).

According to the WHO definition, only a limited portion of the rural population of a developing country appears to be within radius of reasonable access to water supply.

The quality of the water is an important criterion in the planning of rural as well as urban domestic water supply. The water must be safe to human health. Although international standards for water quality have been set by WHO, individual nations have set their own standards which are close to WHO standards. However, in developing nations the lack of long

term investigations and 'crash' short term programmes of water supply have led to the adoption of temporary standards which are inferior to the internationally accepted ones.

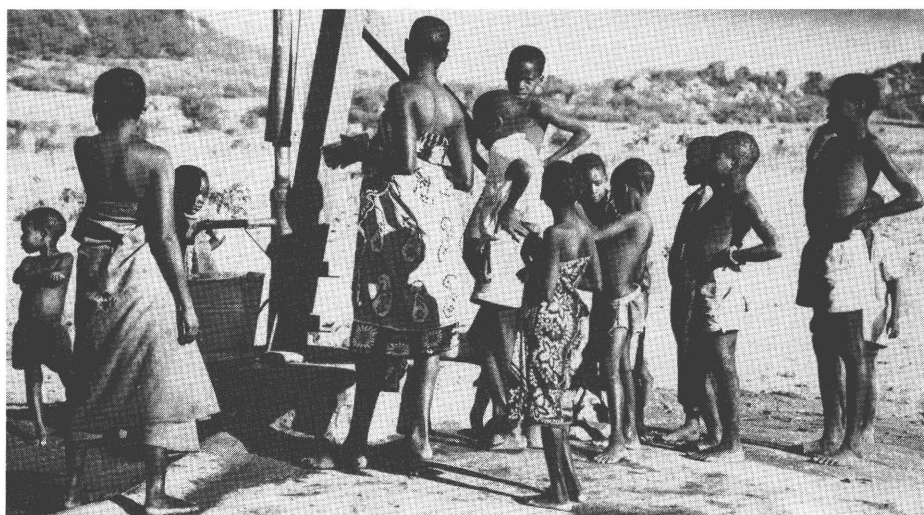
Problems

Data on population is required in the planning of any water supply scheme, in that it helps in the assessment of the water requirement. High annual growth rates of population, characteristic of many developing countries, make estimation of population projections somewhat difficult. For instance, in Tanzania the growth rate, according to the last national census of 1978, is between 2 and 6 per cent with a national average population growth rate estimated at 3.3 per cent. The national average figure of 3.3 percent is consistent with other African and Latin American countries. Fapohunda and Mott (1979) gave the average growth rates of 2.6 per cent and 2.7 percent for Africa and Latin America respectively. However, the reported growth rates of population in developing countries are unstable val-

ues and make long term planning of water supply schemes rather difficult.

Family planning practices recently introduced, the nomadic life style of some communities and improperly planned villagization programmes have resulted in variations of the rate of growth of population from one year to another. The situation is worse in urban centres where annual growth rates are even higher. For instance the city of Dar-es-Salaam in Tanzania is reported to have an annual growth rate of population of about 6-7 per cent according to 1978 national census. The increasing migration from rural to urban centres creates a big strain on the water supply systems of the latter. One often reads reports of urban water supply schemes failing to cope with the demand of water in the daily papers of most developing nations.

The livestock population in some developing countries is fairly high. One has to take into consideration the livestock population, particularly in the planning of rural water supply schemes. Rural populations, by and large, use traditional methods of animal husbandry; animals are made to follow areas with good pasture. Economic conditions and outbreaks of certain animal diseases may send large numbers of livestock units prematurely to the slaughterhouse. Thus the livestock population in one village may change significantly within a short period. In the case of Tanzania some villages experience the ratio of livestock population to human population of value greater than one (Gondwe, 1985). Consequently the planning of water supply schemes in areas with



Only a limited proportion of the rural population is within a reasonable radius of access to water supply

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considerable numbers of livestock becomes very difficult. Rates of water consumption for different purposes have to be known in order to compute the total water requirement of any given area. For rural areas the rate of consumption per capita and the rate of consumption per livestock unit are important. Unfortunately, water consumption rates are difficult to determine due to the fact that people tend to adjust their consumption of water to the available yield and hence even in one country there is bound to be marked variation of the rates. In Tanzania the rate of 25-30 litres per capita per day (lcd) is applied in the planning of rural water supply (MAJI, 1982). Estimates of water consumption rates between 15-35 lcd for rural water supply have been given for the East African region by some researchers. It would thus appear that Tanzania is using reasonable estimates in planning her rural water supplies. The consumption rate of water for one livestock unit per day is given as 25 litres and is given as high as 50-75 l for high grade dairy cattle in Tanzania. Thus the rates of water consumption of rural populations is nearly the same as the rate for livestock units.

The estimate of a water consumption rate of 25-30 lcd is, seemingly on the low side. If a water collection point was provided within a reasonable distance the consumption rate would increase. Considering the climate prevailing in most developing countries people would need to take baths daily and would need to drink a lot of water. If proper sanitation is to be maintained in a rural area, one person would need more than 30 litres of water in a day. The low estimates of water consumption adopted for rural areas in developing countries are due to the method of their estimation which is based on the ratio of yield to the population.

Limited standards

The water quality of the source has an impact on any water supply system. The two substances commonly occurring in water and that have harmful effects on human health are fluorides and nitrates. Frequently, the quality of water from the rural water sources is far below internationally accepted standards. If these standards were to

be strictly followed, a number of sources would have to be abandoned. To give but one example it was found that approximately 45 per cent of the sources in Arusha region in Northern Tanzania have a fluoride content of 1.5 mg/l (Bardecki, 1974) whilst the internationally accepted limit is 0.8 mg/l. To avoid the constraint of internationally accepted limits in the planning of her water supply, Tanzania, like many other countries, set its own temporary limits for domestic water quality. The temporary standards have some limits several times higher than the internationally accepted limits in order to allow exploitation of more potential water sources.

A water resources engineer or planner in a developing country usually has very scanty data or information for meaningful evaluation of potential water resources or data for the planning of a water supply scheme in its entirety. It is for this reason that a number of schemes fail shortly after their commissioning.

A number of dried-up dams and shallow wells in the East African region are living examples in this respect. In some cases technology has been transferred wholesale from abroad to developing countries with little attention given to the local environment.

In urban areas, planning for water supply is made even more difficult by the lack of appropriate coordination between the water department and other departments. The water department must be well informed on the future development plan of the urban area. Otherwise one gets to the situation where huge structures are constructed above water mains and a number of redundant pipelines are laid. Coordination can be achieved by proper placement of the water department in the government structure. The newly formed Ministry of Water, Lands and Urban Planning in Tanzania is a good attempt at achieving the coordination required in the planning of urban and rural water supplies.

Finally, in planning rural water supply it is preferable that the people themselves get involved. It is no good for villagers to just watch a team of technicians moving about with strange instruments and equipment over their

land. The people must be informed about any schemes to be developed on their land. If a livestock keeper sees that a pipeline passes through his village without any provision for watering troughs for animals, he or she is likely to damage the pipe in order to get some water. This has happened in some places, especially in areas which have many livestock units.

Consequently lack of proper operation and maintenance result in the early breakdown of a completed water supply scheme.

The wide assortment of technologies for water supply systems made available to a developing country also causes some operational problems. In most developing countries you normally have a situation where a number of engineering firms from different countries are involved in the drafting of water master plans and in some cases in the implementation of the plans. Each engineering firm introduces its own technology with a result that the country ends up with a number of alternative technologies. This creates a bottleneck in the training of operators, particularly if the training is centralized. It also makes it difficult to erect a central workshop for repair, maintenance services, and for fabrication of spare parts. Tanzania has had about ten regional water master plans and each plan is managed by a different engineering firm. These master plans are financed either through grants from bilateral technical cooperation agreements or through loans from international lending agencies.

The economic situation of nearly all developing countries does not allow for the proper operation of rural water supply. Sometimes the entire treatment works are not operated for lack of chemicals or certain machinery and water is sent directly to consumers from the source i.e., the treatment plant is by-passed. The budget allocated for water supply development is normally relatively small, although many developing countries have set a target to supply clean water to all their people by the year 2000. Tanzania's annual budget allocation to water resource development is approximately half of what it should be if the target of supplying clean water to all the people by 2000 is to be met (Kassum, 1981). ○

E.G.

Big fish threaten Africa's great lakes

By Robert LAMB(*) and Drake McHUGH(*)

Fisheries experts are warning of impending ecological disaster in East Africa's biggest lake — Lake Victoria — as a result of a development experiment that went wrong 15 years ago.

*The introduction of the Nile Perch (zoological name *Lates niloticus*) into the lake in 1960 has led to a drastic drop in numbers and kinds of other fish that live there, according to a report by a team of Dutch scientists from Leiden University. The results of their ten-year study show that losses include many important fish species of high market value as staple and speciality foods, dozens of rare species much prized as ornamental aquarium fish and at least one kind that helps control the human killer disease schistosomiasis (bilharzia) by preying on the water snail that carries it.*

Called "elephant of the water" in some parts of Africa, the Nile Perch can grow to a weight of 100 kg or more. The idea that this enormous predator could co-exist with other species native to the lake has proved tragically faulty. The carp are now cannibalizing their own kind, having reduced populations of most of the lake's 300-plus other species to a fraction of their pre-1970 size. There is no reason to suppose this trend will ease before most of Lake Victoria's native fish species (many of which are unique to this one body of water) have been wiped out, says the report. The economy of hundreds of small and not-so-small fishing communities in Kenya, Tanzania and Uganda (the three countries which border Lake Victoria) is disintegrating because catches are being monopolised and markets flooded by a fast-growing surplus of the introduced fish.

Introducing this monster into East Africa's many large inland waters offered promise of a new, high-yielding protein source for the region. A pilot project backed by — among others — the UN Food and Agriculture Organization (FAO), was set up and stocks of the fish were held ready for introduction in ponds near the northern (Ugandan) end of Lake Victoria in the late 1950s.

At the last moment, scientists and local observers voiced serious doubts about the wisdom of the project. They feared that introducing the Nile Perch might upset the capacity of the lake to support a varied range of species and

that the economic impact could turn out to be counter-productive.

But even while the debate continued, some of the fish somehow escaped — or were prematurely released — into the lake. For nearly ten years, their impact seemed hardly worth worrying about. But by the early 1970s, more and more astonished fishermen found themselves face to face with Nile Perch grown bigger than man-size, in the few moments before their nets broke under the unaccustomed strain.

As the fish spread to other parts of the lake, thoughts of a food bonanza faded with the realization that large-scale fish are not necessarily good news for small-scale economies. In time it became clear that the entire introduction exercise was based on incomplete knowledge and faulty planning.

The Leiden report places the blame for the problem squarely on the original introduction experiment. It maintains that the Nile Perch is gradually robbing the East African economy of a major dollar-earner in the ornamental fish trade and is generally restricting market diversity — a must for the survival of small-scale economies.

The market glut of the new fish (which many local people will not eat) means that a kilogram of Nile Perch is now selling for as little as one Kenya shilling. When other species are available, they fetch 30 shillings a kilo.

As the fish spread they are wiping out the lake's prawn population — an essential link in the food chain for many other creatures besides fish. And their impact is not restricted to the aquatic environ-



ment. They cannot be processed by sun-drying — the traditional method — because they are too oily. They must be smoked and fishermen are cutting valuable trees to excess to fuel this process. The larger fish require heavier, stronger and more expensive nets, resulting in poorer fishermen being driven out of business by wealthier individuals. Fishermen's catches are actually down by two-thirds.

Nevertheless (and incredibly), plans are afoot to repeat similar experiments very soon in other large lakes in the region.

The Switzerland-based International Union for Conservation of Nature and Natural Resources (IUCN) is writing to the governments and intergovernmental agencies involved in the proposed new introduction schemes, to warn them that more introductions will almost certainly mean more regrets than benefits.

IUCN is also endorsing a plan to transfer specimens of other fish species threatened by the presence of Nile Perch in Lake Victoria into large aquaria to preserve their genomes.

The Leiden report calls on the UN Food and Agriculture Organization: "to concentrate on rational exploitation of the indigenous fish stocks, efficient distribution of catches and the reduction of unnecessary losses during preservation and storage". IUCN agrees that these courses of action are far more likely to have fair, productive and sustainable results than further dangerous introductions of East Africa's watery white elephant. o

R.L. and D.McH.

(*) International Union for Conservation of Nature and Natural Resources, World Conservation Centre, Gland, Switzerland.

SUDAN AIRBRIDGE



EEC - Aurea Singh

Hope from the sky

On 29th May 1985, a C-130 Hercules transport plane of the Belgian Air Force landed at Khartoum where Commission officials were standing by to launch an extraordinary adventure in the field of famine relief in Sudan. Working closely with local staff and authorities and supported by expertise and help from most Community countries, the operation, known as the Airbridge, moved over 15 000 tons of vital supplies and equipment between June and November, in what was one of the largest airlift operations since the Berlin Airlift of 1948.

Sudan was second only to Ethiopia in the scale of its requirements for emergency aid under the Community's Dublin Plan of Action. Poor infrastructure, difficult terrain and uncertain weather conditions meant that, even when food aid was unloaded at Port Sudan, the country's only major port — in the east — famine-stricken areas in the western part of the country remained very hard to reach. It was there that a number of programmes — famine relief, medical aid, resettlement and rehabilitation — were under way, conducted on the one hand by the EEC and on the other by nume-

rous European NGOs. The objectives of all these groups were identical — to afford immediate relief to the most vulnerable portions of Sudan's population, vulnerable in terms of age, of location, of condition. And this relief was held up by transport deficiencies, rough terrain and an inhospitable climate.

There was however, a philosophy of operation already at the Commission's disposal, since the scale and diversity of aid operations in Sudan had led to the establishment of three agreed principles of action: combining the efforts

of the Community and the Member States; using all the instruments of cooperation in a joint approach: and mobilizing resources already present in the country, both Sudanese and European, human and material. The Sudanese Government had also responded with a new management system for implementing its policy in the field of relief and rehabilitation, the Relief and Rehabilitation Commission (RRC). A mission from Brussels in the early part of 1985 had identified with those on the spot the areas where urgent measures had to be taken, and where existing agencies or systems were unable to cover the ground adequately. The runways had, so to speak, been cleared — and the Sudan Airbridge was ready for take-off.

The professionals — machines and men

The machines were central to the Airbridge operation: at the height of the operation, 11 aircraft were flying,

CLOSE-UP

C-130 Hercules from Belgium (partly financed by Luxembourg), Italy, Denmark, the Netherlands and the UK, and C-160 Transalls from France and Germany. The former were capable of carrying 20-ton loads, the latter about 10 tons. The determining factors on the actual loads carried were the distance, the need, in some cases, to carry fuel for the return trip, and the state of the runways to be used. Twenty tons, when contrasted with the hundreds of thousands of tons required, seems a feeble enough amount. But, taking 400 grammes per person as a basic ration, 20 tons can feed 50 000 people for a day. And in terms of skimmed milk, 50 grammes will feed a child for a day, which meant that a single Hercules flight could keep half a million children alive each day. Five C-130s, making two rotations each a day could supply 200 tons every day, an amount which would have taken 700 trucks to achieve on a regular basis. And where speed was often of the essence, a C-130 could fly from Khartoum to el Geneina in 2½ hours; a truck would have required between ten and twelve days, and during the rainy season between June and September, no truck could have done it at all. But the C-130 and the smaller C-160 were professionals — built for the exacting tasks of military supply, robust and relatively easy to maintain, they made certain that the Airbridge never came down. Turnround time, including unloading, refuelling, crew changes and maintenance checks, were reduced to half an hour.

The aircrew were absolute professionals. Each aircraft made two sorties each day, every day, with some crews actually making three sorties. Heat, dust, sand- and rainstorms, the intermittent cutting off of navigation and communications aids, and the difficult state of some landing strips put such a strain on crews that they were rotated rapidly, often after a week or two. But morale was high throughout the operation. Captain Krins, one of the pilots of the Belgian Hercules, explained: "The knowledge that you are carrying enough food for 50 000 people is a strong motivation".

Without ground staff, none of this could have taken place, and certainly not with such remarkable continuity. In early May, there was only the recognition of the need, and a philoso-

EEC - Aurea Singh



phy for action. At the end of that month, there was a single aircraft. Very quickly, however, a management and operations team, eventually comprising over a hundred people, local and expatriate, was assembled under the supervision of the EEC Delegation in Khartoum.

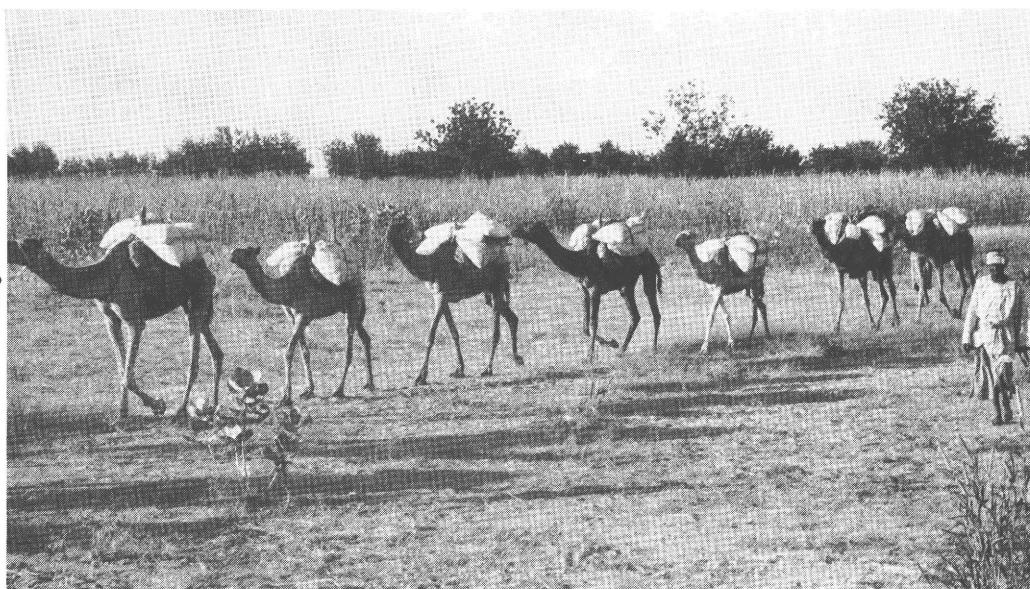
The tasks were many and various. Each relief agency operating in the area had pressing needs and priorities — and they all had to be accommodated. Aircraft had their limitations and their needs for fuel, lubricants, spare parts and maintenance. The Airbridge team was divided into two broad categories, technical services and administration, under an overall Airbridge Coordinator. The expatriate expertise was sought principally from people already on the spot and they, the EEC Delegation and the Sudanese authorities, civil and milita-

Three vital links in the Airbridge chain: manpower, camels and trucks. The trucks, although invaluable, were immobilized throughout the rainy season from June to September, but the men and camels didn't stop for a single day.

EEC - Aurea Singh



EEC - Aurea Singh



ry, were welded into an operational team.

Technical services dealt with aircraft and aircrew supply and maintenance, dispatching, communications, ramp control (supervising the correct loading and unloading of aircraft); administration covered agency liaison, commodity scheduling, stock control and accounts. Planning often had to be on a day-to-day basis, and problems arose almost every day to upset whatever plans had been made. But morale remained high and those on the ground maintained the Airbridge through every day of its operation — a period of some six months. From an early level of 130 tons of supplies moved each day, the level eventually rose to some 200 tons each day. And, as with the aircrew, the ground staff were sustained by the realization that their efforts were directly saving hundreds, and perhaps thousands, of lives. It was an inhabitant of el Geneina who remarked: "If the planes keep flying we live; if they stop, we die".

Where and what

Airbridge operations were concentrated on Darfur Region in the western part of Sudan, especially to the three regional centres of Nyala, el Fasher and el Geneina. From these points, camels, organized into caravans and guarded by armed police, would carry the supplies to the villages, since, from June until the end of September, the heavy rains made Western Sudan impassable to all transport except the ship of the desert (or in this case, the swamp). These conditions made it virtually impossible to use the helicopters to their full capacity, and did not make flying the C-130 and C-160 transports any easier either. Flooded airstrips and poor visibility added to the heat, dust, fuel shortages and occasional strikes to increase the stresses and strains on men and machines alike.

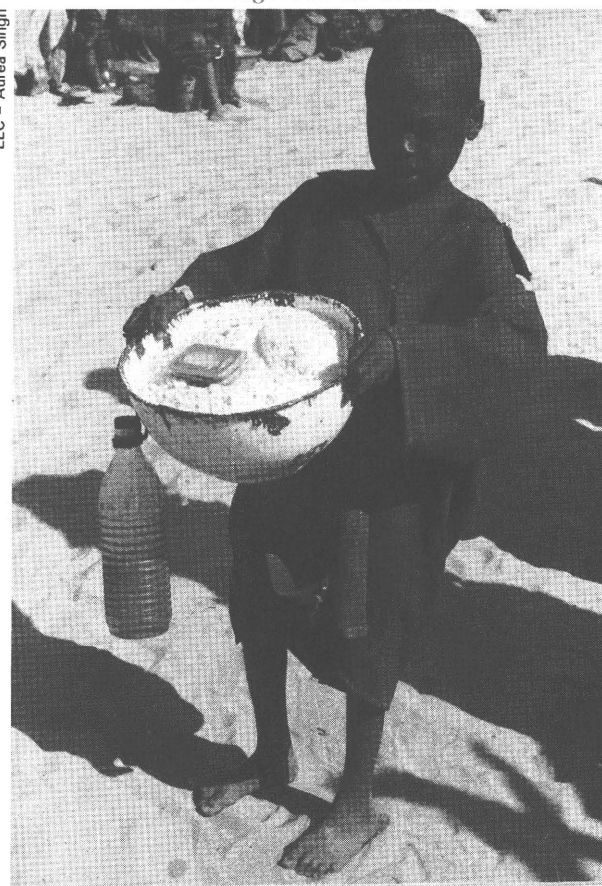
What was it that had to be carried by the Airbridge? Relief



Five C-130s, making two rotations each a day could supply 200 tons every day, an amount which would have taken 700 trucks to achieve on a regular basis

supplies, in the form of thousands of tons of cereals were already being transported by rail from the Port Sudan (and even by truck through Cameroon and Chad) to the affected areas. Block trains (that is, trains for which the line was cleared of other traffic for the whole length of their journey) capable of carrying 600 tons on one trip, were obviously able to shift far greater quantities than any Hercules — whose maximum payload never far exceeded 20 tons. But, as with commercial freight, the higher cost of air transport is still cost-effective for two sorts of commodity: high-value, high-density stores and urgent supplies.

A bowl of lentils in a child's hand is what the Airbridge was all about



Priority was thus given to air-lifting dry skimmed milk (to save children and lactating mothers), beans and lentils, seeds for the rehabilitation programme and medicines for checking the spread of epidemics. In addition, specialized equipment for drilling for water, or for water purification, fuel, vehicles, generators, prefabricated warehouse parts and medical equipment were all found space on the flights. When flash floods destroyed a bridge near el Geneina and cut off 25 000 refugees in a camp at Asernai, 1 200 km from Khartoum, the aircraft flew out rubber boats to

cross the river, and then, working in conjunction with the Sudanese Armed Forces, flew out parts of a Bailey Bridge which Sudanese Army Engineers assembled on the spot. Two days after the bridge parts had arrived at Khartoum Airport, traffic was once again flowing over the bridge.

Wings for speed

An accusation is levelled from time to time at the Commission by some people, in relation to its ability to provide emergency aid, to the effect that its procedures are cumbersome and bureaucratic and its reaction to emergencies is sometimes too slow. The creation and maintenance of the Airbridge and the efficient and cost-effective nature of its work must stand as a convincing rebuttal of this charge. The Airbridge was a speedy, on-the-spot response to an urgent situation; expertise was, so to speak, 'hailed in off the street', administrative structures set up, cooperation established, of the most cordial and constructive kind, with the Sudanese authorities and all energies were bent to the job in hand. The figures speak for themselves: 11 aircraft, all with aircrew, over 100 ground staff, over 15 000 tons of urgent supplies shifted over a six-month period. Where lives are at stake, or where no other means are available, the Commission has demonstrated with the Sudan Airbridge that it can really spread its wings. ○ T.G.

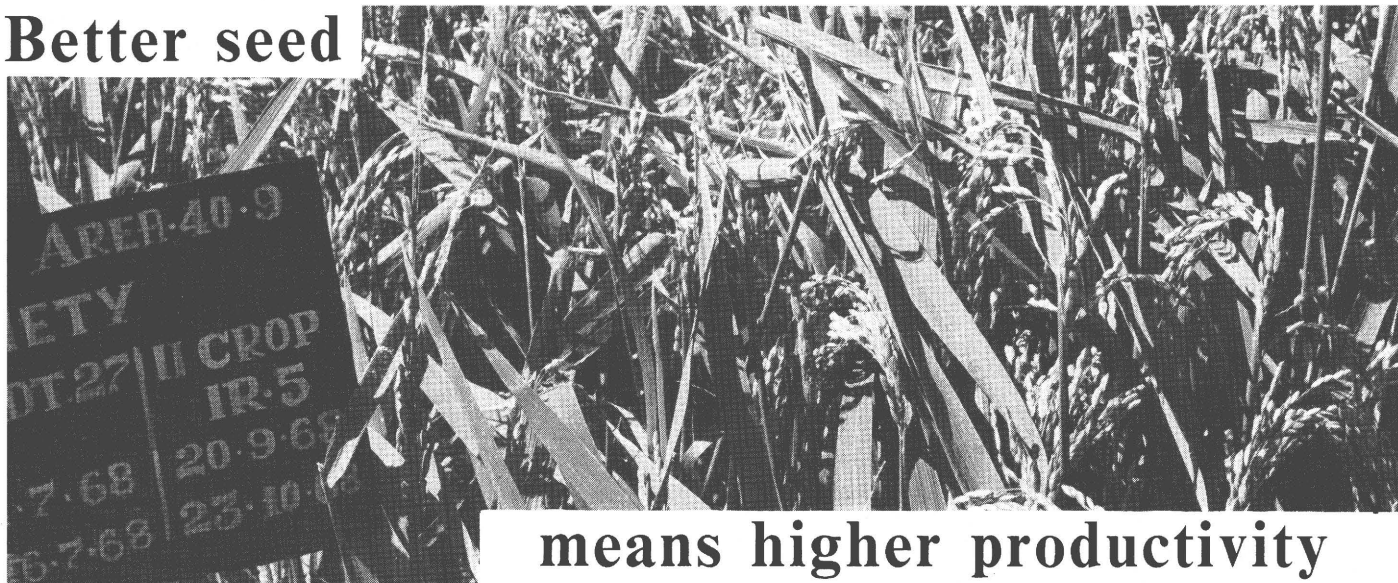


CTA

Bulletin

TECHNICAL CENTRE FOR AGRICULTURAL AND RURAL COOPERATION

Better seed



means higher productivity

Everyone knows that one of the best ways of boosting crop yield and pushing up agricultural production is to use improved seed. This is why the perfection and distribution of high-performance varieties has always been one of the prime concerns of agricultural research and extension organizations and the subject of many projects in the developing countries.

Everyone also knows, alas, that in spite of this, the agricultural situation in a large number of countries is in constant decline.

There are a number of possible explanations, but one thing is clear and that is that one of the things that is increasingly found to be at fault is the approach used by most agricultural/rural development projects and seed schemes in particular.

With seed, as with other fields, programme and project design does not take enough account of the real situation of the small producers—who are in the vast majority. And for years, the idea in many cases has been to introduce new techniques and materials at all costs—high capital input, that is to say—rather than improve the performance of well-tried methods and equipment.

There is no miracle solution, of course. It would already have been applied. But once the approach has been

mastered, there are all the practical constraints to be removed!

Constraints in the seed sector occur in at least four different areas—in strategy, in technology, in plant technology and in extension work.

Strategy

There are still many factors limiting the production and distribution to farmers of improved seed.

As we have already stressed, many of the current seed programmes have not been brought into line with the conditions in which the small farmers—who still make up 80% of the agricultural workers in, say, the ACP countries—work.

And similarly, in spite of the fact that the seed programmes have apparently been recognized as important, many problems persist in the structures that have to run them. Functional organization is wanting, specialized staff are short and the material and financial means are inadequate.

Even in cases where the means actually exist, a problem remains in the poor coordination of the various links in the seed chain—i.e. research, multiplication, popularization and distribution. In many cases, major rural development projects exist alongside big seed projects (geared to multiplication in particular), while research is confined to the role of supplier of basic seed, the price of which it is often alone in deciding, with little regard to

the effect it may have on the producer. And let us not forget that the technical drawbacks of this compartmentalization only serve to widen the gap between research and extension and restrict the possibilities of research programmes taking grass roots problems into account.

Lastly, it is worth noting that the small producers' minimal buying power is a major problem, because it bars access to the improved seed market, as is the poor price paid for agricultural produce because it is no encouragement to production.

This is why, going beyond the technical arrangements that the above remarks suggest, the crucial problem is still a sound seed policy which will fit properly into a global agricultural policy that has been defined as a part of the national development plans.

As Gregg and Wannapee⁽¹⁾ say: "An effective, realistic National Seed Policy is essential... The role of the National Seed Policy is to create an environment in which an effective seed supply can develop, and which can create and maintain farmer acceptance of improved seed. It should be specific yet flexible enough to adjust readily to rapidly-changing conditions which affect seed supply and demand".

(1) B. Gregg and P. Wannapee, respectively Senior Seed Specialist and Deputy Director General, Dept of Agricultural Extension, 2143/1 Paholythin Road, Bangken, Bangkok, Thailand. Key-note: CTA Seminar on seed production, Yaoundé, October 1985.

Technology

The non-existence or non-distribution of proper technological equipment to the small farmers considerably restricts the popularization and use of improved seed and the actual involvement of small farmers in the seed programmes.

The main things on offer on the international market are outsize, sophisticated models designed by the industrial technologists and they have led a number of projects astray.

But it would be wrong to exaggerate or to risk putting a spanner in the wheels of progress. Let us simply avoid using a sledgehammer to crack a nut, to use another metaphor.

In other words, the amount of equipment should be a function of the levels of production or responsibility.

In situations where basic seed is produced on centralized farms, heavy plant will of course be required and cheap, simple models will be developed for the peasants called upon to popularize. Note, nonetheless, that experience has shown that decentralization of production among the peasants, even in the case of basic seed, is extremely effective.

A search for appropriate technology for the small producer should therefore be a priority. Otherwise many a project and programme will—or has already—become a veritable scrapyard where machinery and equipment are stockpiled while problems are left unsolved or allowed to get worse...

Care is also called for in approaching "appropriate", "suitable" or "intermediate" technology, as the meaning may vary with the user⁽²⁾.

For example, the idea of improving peasant storage facilities above all means improving traditional peasant granaries. The weaknesses of the system—the rats, the rain and the handling problems—have to be defined first and then the appropriate technological means of solving the problems have to be found. We must stop thinking that something is good just because it worked with small farmers in Asia or South America and must be used in an African country where a study happens to be being run.

Plant technology

There was a serious imbalance between food crops and cash crops a few years ago, as attention had long been focused on the cash crops when it came to developing new varieties.

Things have improved vastly since. There are still problems, of course, including the fact that seed programmes and projects underestimate the performances of local varieties and the need to adapt the new ones to the conditions of peasant production.

Then, particularly when means are short or organization is bad, the poor conditions of production (like those of packaging and storage) have a considerable effect on seed quality—which is the most important criterion when it comes to acceptability and distribution.

And lastly, there is a problem of the quantity of seed produced, as shortfalls and surpluses occur because the farmers' needs are not properly estimated.

So, on the research front, it is important to make a careful evaluation of the local plant stock and the possibilities of improving physical properties and genetic quality and to assess the performance of new stock in the light of these characteristics so as to arrive at a clear definition of what parameters to use in agricultural testing and what methods to use to demonstrate them to the peasants.

The extension services have to refine their ways of assessing needs so that production levels can be geared accordingly. Standard estimates are too empirical and can be downright whimsical. The forecasting of requirements must be as decentralized as possible, as must the multiplication programme—in this latter case provided the necessary means are available for the organization monitoring the scheme to carry out quality control right from sowing down to the delivery of seed to the central warehouse.

A proper regional cooperation sys-

(2) See "Technologies appropriées: trouvez le bon sens" (Appropriate technology: finding the right meaning) in *Revue Technologies Appropriées et Communication*, Special issue July 84 (pp. 2-4), GRET, 75011 Paris.

tem between ACP countries with similar ecologies, with the exchange of seed stock that meets international standards is an as-yet under-exploited possibility and one which would save an appreciable amount of time and money.

Extension work

Over and above the strategic problems, it is still clear that people do not take enough notice of the local habits and traditions that may be a barrier to the introduction of improved seed. Once they know about these and cater for them, they can be an efficient means of promoting the drive to change seed habits.

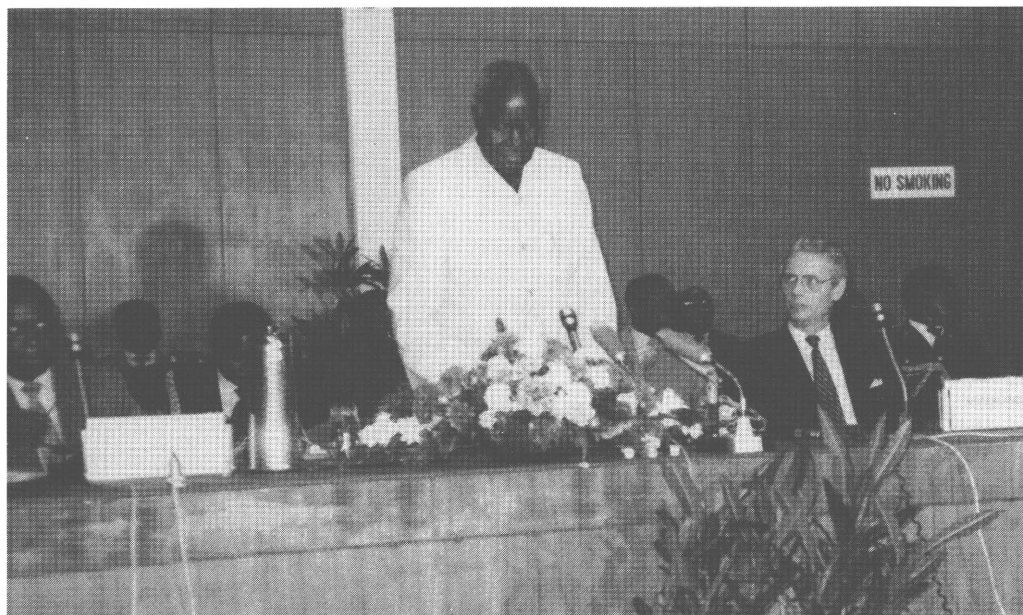
Another barrier is the facile, unwarranted generalization of the idea that peasants are hostile to change. All the peasant is waiting for is to be convinced of the need or the point of this change. Which is why the role of the extension structures is a fundamental one as far as seed is concerned. Simply designed demonstration fields should be installed for the peasants so they can carry out the work themselves under supervision. This makes it easier both to get the peasants to adopt improved seed and to decentralize the demonstration plots so that distribution is faster.

Lomé III puts agricultural priority on self sufficiency and regular food supplies for the ACP countries. One of the things this means is regularizing the seed situation—which in turn means that there must be an integrated agricultural policy and a clearly defined seed policy, with adequate means for the organizations in charge of running the programmes.

Anyone interested in this topic should know that the above points were discussed in depth at a seminar of ACP and EEC experts in Yaoundé (Cameroon) on 21-25 October. It was run by the CTA with technical help from the IAC (the International Agricultural Centre in Wageningen) and contributions from international organizations such as the FAO and IITA (the International Institute of Tropical Agriculture in Ibadan, Nigeria) and a report of it can be obtained from the CTA. ○ D. HOUNKONNOU

Lusaka: EEC-Frontline States Meeting

A COMMON GOAL



President Kenneth Kaunda addressing the conference. On his left is Mr Hans van den Broek, President of the EEC Council of Ministers

BUT DIFFERENT APPROACHES

Hard on the heels of the ACP-EEC Joint Assembly meeting in Mbabane and SADCC's seventh annual consultative conference in Harare came another meeting within the same region: that of the Foreign Ministers of the European Community and the Frontline States, in the Zambian capital, Lusaka, on 3-4 February.

No sensational outcome, of course, was expected. That the ministers met to discuss the situation in Southern Africa was, in itself, as President Kenneth Kaunda put it, "of singular importance", indeed historic.

Initiated by the Frontline States and backed by the ACP-EEC Council of Ministers, the meeting gave the clearest indication yet that Europe shares the anxiety of the Frontline States over the extremely dangerous situation in that part of Africa and its possible wider international repercussions and, furthermore, that there are movements, though barely perceptible, in the right direction.

Representation on the African side was high. Notable were Mr Joachim

Chissano of Mozambique, Mrs Gaotsiwe Chiepe of Botswana and Mr Alphonso Van Dunem of Angola—three of the countries that have been victims of South Africa's aggression in recent months.

Mr Sam Nujoma the leader of SWAPO, was present in Lusaka but did not take part in the conference though he saw a number of delegations privately.

The level of representation on the European side may have been frowned upon privately by the Africans. (Apart from Dutch Foreign Minister Hans van den Broek, the current President of the EEC Council of Ministers, only two senior ministers were present—Sir Geoffrey Howe of the United Kingdom and his Greek counterpart, Carolos Popouleas. Others were junior ministers). The significance of the conference was certainly not lost on anyone.

On the agenda were: apartheid and minority rule in South Africa, the destabilization of neighbouring states by the apartheid regime and the latter's

continued illegal occupation of Namibia.

In an eloquent speech, typical of Dr Kaunda in these matters, the Zambian President, who is also Chairman of the Frontline States, told the conference that they had studied the situation carefully and had come to the ines-

Also in the yellow pages

- III. Delay in entry into force of Lomé III
- IV. Lomé III programming
- V. Special Sugar Council in Brussels
- VI. EDF financing
- VIII. Visits: President Abdou Diouf at the Commission
- X. Implementation of the Rehabilitation and Revival Plan
- XI. SILVA Conference in Paris
- XIII. Signature of the European Single Act

capable conclusion that despite its strong military force and extensive security systems, Pretoria cannot and will not maintain stability in South Africa unless and until all its citizens are given equal opportunity to determine their destiny under a democratic political system. "If Mr Botha", he said, "does not take real, bold steps to pull down the pillars of apartheid, there will be a racial conflagration in which all of us will be affected". He pointed out that, because the Frontline States have had the courage to tell Pretoria these home truths and to support those seeking to bring an end to apartheid, they have been attacked and are now living in perpetual fear of being attacked by South Africa. If the Frontline States, said the President, have called for full economic sanctions knowing full well the dire consequences that they would have for the people of South Africa and for their own countries, it is because they believe sanctions constitute an instrument of peaceful change. They will prefer to suffer a little now rather than much more when the racial volcano in South Africa erupts, for the lava will flow beyond its borders, killing and maiming. Dr Kaunda declared: "We in this region will be forgiven in thinking that our European friends do not care about what is happening in this region so long as their multinationals continue to earn huge profits from their investments in South Africa because of the black man's cheap labour, for how else can we explain their reluctance, and in some cases, strong opposition to sanctions as an instrument of peaceful change". He warned that if the situation does not change for the better, and soon, those investments "will go up in flames". Most European governments, he felt, have been duped by South Africa's propaganda that real change is taking place in that country, hence they argue that nothing should be done to disturb that process. The so-called measures announced by Mr Botha were not meant to abolish apartheid but to make it more acceptable.

On Namibia, Dr Kaunda rejected the linking of that country's independence with the withdrawal of Cuban troops from Angola. Both issues were unconnected and unacceptable. He could not see why, 20 years after the United Nations terminated South Africa's mandate over the territory, Pretoria should continue to administer it. The oppressed people of Namibia were, he said, anxious to be free.

Replying, the President of the EEC Council of Ministers, Hans van den Broek, told the 18-nation conference that the European Community shared the concern of the Frontline States over the three issues under discussion. The EEC is totally opposed to apartheid and would like to see it dismantled in favour of a free, democratic and prosperous South Africa in which all the races enjoy equal rights. This stand, he said, is based on the Twelve's commitment to fundamental human rights enshrined in the UN Charter and laid down in the Universal Declaration on Human Rights.

The European Community, Mr van den Broek said, has rejected the use of violence from whatever source and has repeatedly called on all parties to seek a peaceful solution to the problems of South Africa. He reminded the conference of an EEC ministerial delegation to South Africa last year which resulted in the Twelve deciding, on 10 September, on a comprehensive and harmonized set of measures designed to bring pressure on Pretoria to begin dialogue with the authentic leaders of the black people, including those in prison, with a view to bringing an end to the system of apartheid. (See The Courier no. 94). The Twelve have noted in this regard measures announced by Mr Botha in Parliament on 31 January. While these appear to contain interesting features, "they seem both in tone and in substance insufficient to bring about fundamental changes". Mr van den Broek noted that when the Twelve took the September measures they indicated that they reserved the right to review their

attitude if no acceptable progress has been made within a reasonable period.

On destabilization of Southern African countries, the minister regretted that while the Community, through SADCC, was helping the Frontline States to be economically less dependent on South Africa, the latter's actions in the region were rendering development more difficult. Violence in Angola and Mozambique has serious consequences for economic and social progress and "we are aware of the suffering that war brings to the populations of these countries". The EEC, he said, has also condemned them, as well as the raids on Gaborone and Maseru by South African forces.

On Namibia, Mr van den Broek said that the Twelve considered the interim administration set up by South Africa in the territory as "null and void". They found it also unacceptable that the implementation of the UN's plan for Namibia should be hampered by "issues unrelated to the substance of the Security Council Resolution 435 on the territory".

Mr van den Broek told the Frontline States: "Our common goal is indisputably the ending of apartheid. Even if we have differences regarding the most appropriate ways and means of achieving this, you may rest assured of our unrelenting commitment to respond to the democratic aspirations of all the people of South Africa and once all these aspirations have been fulfilled the expression 'Frontline States' would have become a mere relic of the past".

Speaking briefly to a closed session of the conference later, Commission Vice President Lorenzo Natali expanded on the issue of aid to the Frontline States, aid geared both towards reduction of their dependence on South Africa and strengthening regional co-operation. He spoke of the EEC's humanitarian assistance to the peoples of South Africa and Namibia and of its readiness to consider Namibia's participation in the Lomé Convention as soon as it achieves independence.

The red-carpet treatment given to the Angolan rebel leader, Jonas Savimbi, by the US President Ronald Reagan earlier in the week of the conference, provided both sides with an issue as controversial as the recognition of the ANC (African National Congress).

Foreign ministers (left) of Mozambique, Botswana and Angola listen intently



Imperceptible movements

Incensed by what they saw as US support for banditry in Angola, the Frontline States had wanted a joint statement either regretting or condemning outright the United States support to the rebels. The Europeans would not budge, neither would they on a demand for a recognition of the ANC. A very small concession was, however, to emerge in the final communiqué on the latter when the Foreign Ministers "urged the Government of South Africa to lift the ban on the African National Congress of South Africa, the Pan Africanist Congress of Angola and other political parties so as to create an atmosphere conducive to the desired political dialogue". It has been noted that Sir Geoffrey Howe authorized a senior civil servant in the Foreign and Commonwealth Office to meet an ANC official during the conference. It was the first time that such a meeting had taken place. Sir Geoffrey Howe was to explain later in a communiqué that the object of the meeting was "to convey a message of peace, to argue against violence and to press the case for dialogue". "Britain" he said, "believes in opening channels of influence, not closing them through boycotts". These are part of those barely imperceptible movements that observers see as being in the right direction.

The carefully worded communiqué issued at the end of the conference reflected the spirit of give and take that characterized the two days of discussions, even though the Frontline States felt they did almost all the giving. There was an appeal to South Africa to release unconditionally all political prisoners and detainees, including Nelson Mandela, and a condemnation of the apartheid regime's



Sir Geoffrey Howe
of the United Kingdom.

"Britain believes in opening channels of influence, not closing them through boycotts"

"aggression and destabilization in all its manifestations, including the use of any direct or indirect armed actions in neighbouring states, in particular Angola and Mozambique. In this regard they agreed to deny perpetrators of such actions any assistance or support".

The ministers also demanded the withdrawal of all South African troops from Angola. They agreed that measures against Pretoria announced by the EEC, the Commonwealth, the Nordic countries, the United States of America and other governments and organizations were very important, adding that if they all failed to achieve the desired results, "further measures should be considered". The ministers did not indicate whether they will meet again. ○

A.O.

Madagascar — can thus be added to the lists published in *Couriers* nos 93, 94 and 95.

Two other members of the Community, France and Germany, have also ratified the Convention since then, bringing the total number of Member States to have ratified up to five. It is worth remembering that Spain and Portugal are not yet members of Lomé III.

For the Convention to take effect on 1 March 1986 as planned, 44 ACPs and all 10 Community countries would have had to have ratified within the prescribed time limits. However, as they did not, the European Commission has suggested that the EEC Council extend the transitional measures introduced in March 1985 (and scheduled to stop on 28 February this year) until Lomé III actually takes effect (but no later than 30 June 1986). ○

LOMÉ III PROGRAMMING

Programming of the 6th EDF (Lomé III) has been continuing during the past two months. Eight more countries have been visited, which brings the number of programmed countries up to a little more than half the 66 ACP States. The sum indicated for each country in the financial package does not include additional resources which could be made available to ACP countries during the life of the Convention in the form of non-programmable aid administered by the Commission, such as Stabex transfers, emergency aid or food aid. In addition the EIB could also provide financing from the resources which it manages.

Zambia

Under the National Indicative Programme for Lomé III, Zambia will receive, in programmable resources, the sum of ECU 81 million (approximately 410 Kwacha at present exchange rates). This is composed of ECU 66 m in grants and ECU 15 m in the form of special loans.

Community aid will be applied in pursuit of the following main objectives:

- balanced development of the agricultural sector to increase productivity, to help achieve as a first priority food self-sufficiency and to improve the distribution of incomes;

THE CONVENTION AT WORK

Lomé III, a late starter

The new Convention, which was signed back in December 1984, will be taking effect on the first day of the second month after the date on which the instruments of ratification of the 10 signatories of the Community and at least two thirds of the ACP countries are deposited.

By 21 February, 42 of the 66 ACP countries had completed their ratification procedures and the following 16 — Saint Lucia, Sierra Leone, Trinidad & Tobago, Burundi, Antigua-Barbuda, Grenada, Côte d'Ivoire, Equatorial Guinea, Cameroon, Rwanda, Liberia, Congo, Chad, Zambia, Lesotho and

- reduction in import requirements for agricultural production and encouragement of agricultural exports;
- rehabilitation and maintenance of existing rural transport infrastructure and facilities;
- provision of economic and social infrastructure in order to improve the well-being of the rural population;
- increasing the availability of skilled manpower in priority areas within the public, parastatal and private sectors;
- conservation of the natural environment and resources.

In addition, the European Investment Bank may contribute from the resources it manages to the financing of productive investment projects principally in industry, agro-industry, mining and tourism that comply with the criteria and statutes of the Bank and the provisions of the Third Lomé Convention. The Bank has indicated an amount of ECU 30 m as an order of magnitude for the total assistance that it could provide.

The Community delegation stated that a sum of ECU 110 m (corresponding to approximately 560 m Kwacha) has been earmarked for regional cooperation. These should take place mainly within the framework of the Southern African Development Coordination Conference (SADCC) and the Preferential Trade Area (PTA) and have as their focal points the development of agriculture and the conservation of natural resources within the region and the development and rehabilitation of the transport and communication sector, with particular reference to TAZARA and the Beira and Maputo corridors.

The Indicative Programme was signed in Lusaka on 7 December 1985 by the Hon. Luke John Mwanashiku, MP, Minister for Finance and National Commissioner for Development Planning on behalf of the Republic of Zambia, by Mr Dieter Frisch, Director-General for Development on behalf of the Commission and by Mr Genazzini in respect of matters under the responsibility of the European Investment Bank.

Gabon

Gabon will receive ECU 23 m in programmable aid, of which ECU 15 m will be in the form of grants and ECU 8 m in the form of special loans.

Community aid will be focussed, on the one hand on increasing agricultural and livestock production and improvements to their marketing, and on the other to the protection of the environment and the rational exploitation of renewable resources, in particular, forestry resources.

In addition, the European Investment Bank may contribute from the resources it manages, to the financing of productive investment projects that comply with the criteria and statutes of the Bank and the provisions of the Third Lomé Convention.

The Community delegation indicated that a sum of ECU 80 m has been earmarked for regional cooperation in the Central African region.

The Indicative Programme was signed in Libreville on 16 December 1985 by Mr Pascal Nze, Minister of Planning on behalf of the Republic of Gabon, by Mr Michel Hauswirth Deputy Director-General for Development on behalf of the Commission and by Mr Jacques Silvain in respect of matters under the responsibility of the European Investment Bank.

Sao Tomé and Príncipe

The Democratic Republic of Sao Tomé and Príncipe will receive ECU 6 m as programmable aid, of which ECU 5 m will be in the form of grants and ECU 1 m in the form of risk capital managed by the European Investment Bank.

Community aid will be concentrated on rural development with priority given to improving the well-being of the rural population and developing agricultural output, as well as to actions aimed at satisfying the country's food requirements. All these aims are in line with the guidelines established by the national authorities and outlined at the Round Table and which figure in the 1980-86 Five-Year Plan.

In addition, the European Investment Bank may contribute from the resources which it manages, to the financing of productive investment projects that comply with the criteria and statutes of the Bank and the provisions of the Third Lomé Convention.

The Community delegation indicated that a sum of ECU 80 m has been earmarked for regional cooperation in the Central African region.

The Indicative Programme was signed on 21 December 1985 by Mr Carlos Alberto Pires Tiny, Minister of Cooperation on Behalf of the Democratic Republic of Sao Tomé and Príncipe, by Mr Michel Hauswirth, Deputy Director-General for Development on behalf of the Commission and by Mr Guy Berman in respect of matters under the responsibility of the European Investment Bank.

Congo

The People's Republic of the Congo will receive ECU 44 m in programmable aid, which represents about CFAF 15 billion. This sum is composed of ECU 34 m of grants and ECU 10 m in the form of special loans.

Community aid will be concentrated on the improvement of the living standards of the rural population and the increasing of its production capacity in order to provide for improved food supplies to the country.

In addition, the European Investment Bank may contribute from the resources which it manages, to the financing of productive investment projects which comply with its criteria and the statutes of the Bank and with the provisions of the Third Lomé Convention.

The Community delegation indicated that a sum of ECU 80 m could be made available for regional projects in the Central African sub-region.

The Indicative Programme was signed in Brazzaville on 15 January 1986 by Mr Pierre Moussa, Minister of Planning and the Economy on behalf of the People's Republic of the Congo, by Mr Michel Hauswirth, Deputy Director-General for Development on behalf of the Commission and by Mr Justin Loasby in respect of matters under the responsibility of the European Investment Bank.

Guinea Bissau

Guinea Bissau will dispose of ECU 35 m in programmable aid of which ECU 31.5 m will be in the form of grants and ECU 3.5 m will be in the form of risk capital managed by the European Investment Bank.

The main thrust of Community aid will be concentrated on rural development and the increase of food supplies. This will be achieved by supporting global and coherent programmes aimed at increasing the

quantity and quality of production with the aim of bettering the living and working conditions of the producers.

In addition, the European Investment Bank may contribute from the resources which it manages, to the financing of productive investment projects that comply with the criteria and statutes of the Bank and the provisions of the Third Lomé Convention.

The Community delegation indicated that a sum of ECU 210 m was earmarked for regional cooperation in the West African region.

The Indicative Programme was signed on 21 January 1986 by Mr Bartolomeu Simoes Pereira, Minister of Economic Coordination, Planning and International Cooperation on behalf of Guinea Bissau, by Mr Michel Hauswirth, Deputy Director-General for Development on behalf of the Commission and by Mr Tassilo Hendus in respect of matters under the responsibility of the European Investment Bank.

Mozambique

The People's Republic of Mozambique will be receiving the sum of ECU 145 m as programmable resources. This sum is composed of ECU 130 m in the form of grants and ECU 15 m in the form of risk capital managed by the European Investment Bank.

The Community's aid will be focussed on the development of agriculture and integrated rural development with an emphasis on the smallholder, private farmer, artisanal fisherman and cooperatives' activities in order to achieve food self-sufficiency, as well as on the complementary activities of small-scale industry and the development of socio-economic infrastructure in the rural areas.

Outside this area, where the maximum amount of funds will be concentrated, the Community will devote at least 30% of the overall amount available to improving transport facilities and to expand cooperation with neighbouring countries by the financing of the Beira Transport System, with a contribution of at least ECU 5 m as a complement to financing under the Lomé regional cooperation programme, and of the Nacala railway line, with an amount of at least ECU 15 m, and to assist in the development of human resources in Mo-

zambique by supporting a pre-entry science course at the Universidade Eduardo Mondlane, as well as by the creation of a pedagogical institute.

In addition, the European Investment Bank may contribute from the resources that it manages to the financing of productive investment projects, principally in industry agro-industry, tourism and fisheries that comply with the criteria and statutes of the Bank and the provisions of the Third Lomé Convention.

The Community delegation stated that ECU 110 m had been earmarked for regional cooperation in the Southern African sub-region.

The Indicative Programme was signed in Maputo on 8 February 1986 by the Hon. Joaquim Ribeiro de Carvalho, Minister of Foreign Trade on behalf of the People's Republic of Mozambique, by Mr Dieter Frisch, Direc-

tor-General for Development on behalf of the Commission and by Mr Curwen in respect of matters under the responsibility of the European Investment Bank.

Ghana

Ghana will be receiving, as national programmable resources, the sum of ECU 86 m, equivalent to 7 bn Cedis, all of it in the form of grants.

Some 80% of the EDF allocation would be devoted to the rural and transport infrastructure sectors. In the rural sector, priority will be given to improving the quality of life, emphasis being placed on the role of women in development; particular attention will be paid to problems of food storage, preservation, processing and marketing. Furthermore, the rehabilitation of the transport infrastructure in the southwestern part of the country will

Special Sugar Council in Brussels on 4 March

The ACP Group first brought up the idea of a Special ACP-EEC Council of Ministers at the last meeting of the ACP-EEC Committee of Ambassadors (Courier N° 95), as discussions on fixing guaranteed prices for 1985-86 (and they began in July last year!) are still in a state of impasse.

The Community began reluctantly, but then agreed to the ACP request for a special top-level meeting.

The representative of Barbados, who is Chairman of the ACP Ambassadorial Sub-Committee on Sugar, held a press conference on 18 February at which he said the Group disagreed with the Community's offer for the guaranteed price of ACP sugar during the present year.

Ambassador Ruall C. Harris said that the suggested 1.15% increase in the price of raw ACP sugar (as against 1.3% for refined sugar from the EEC) was inadequate, bearing in mind that there had been a total freeze—i.e. there had been no increase in the price paid for ACP sugar in 1984-85. This 1.15% increase was also less than the 1.3% increase in the price for ACP sugar which the European Commission had proposed in September 1985, the Sub-Com-

mittee Chairman said. He thought the Community had not been applying the Sugar Protocol to the letter for years, since ACP sugar prices were not really negotiated in the light of major economic factors or the costs of production. And the guaranteed price had often been the same as the intervention price for Community sugar, which, Ambassador Harris said, went against Article 5(4) of the Protocol.

He also said that a 1.15% increase would be £500 000 for all the raw ACP sugar delivered cif to the European ports. At the same time, he added, the refiners, whose idea of profit margin is taken into account in the Community's decision-making, make 25 times more than the ACPs do. UK sugar industries had notched up more than £12 million profit in 1985, for example.

As the two parties have failed to agree on the guaranteed price for ACP sugar by the ordinary means, the Ambassador concluded, the ACPs had asked for a special ACP-EEC Council of Ministers to be called (Brussels, 4 March) to do something about it. Mr Harris very much hoped the Ministers would manage to sort it out. ○

serve to improve the flow of inputs to, and exports from, this area.

In addition, the EIB could make available, from the resources under its management, up to ECU 20 m for investment in productive capital projects in such fields as energy, mining, agro-industry and tourism.

The Community delegation stated that a sum of ECU 210 m was available for regional cooperation in the West African region.

The Indicative Programme was signed in Accra on 12 February 1986 by Dr Kwesi Botchwey, PNDC Secretary for Finance and Economic Planning on behalf of the Republic of Ghana, by Mr M. Hauswirth, Deputy Director-General for Development on behalf of the Commission and by Mr P. Thomas in respect of matters under the responsibility of the European Investment Bank.

Sierra Leone

Sierra Leone will be receiving the sum of ECU 69 m as programmable resources under Lomé III. This sum is composed of ECU 56.5 m as grants, ECU 5 m as special loans and ECU 7.5 m as risk capital managed by the European Investment Bank.

The Community's aid will be focussed on enhancing the country's productive capacity and on improving the efficiency of the agricultural sector, aiming in particular at increasing local food production, and the improvement of rural living conditions with a view to reducing migration into the towns and urban unemployment.

In addition, part of the resources managed by the Commission will be used for actions geared towards the improvement of electricity production and distribution and to promoting the development of Sierra Leone's considerable potential of renewable and alternative sources of energy, and to supporting actions in the field of education and training.

In addition, the European Investment Bank will be able to help finance, from the resources under its management, productive capital projects which meet its criteria and statutory rules and which conform to the Lomé III Convention.

The Community delegation stated that the sum of ECU 210 m had been earmarked for regional cooperation in the West African region, for regional

projects in such fields as telecommunications, agriculture, air safety, fishing, livestock, health and research.

The Indicative Programme was signed in Freetown on 18 February 1986 by Mr Amara Bangali, Minister of Finance, on behalf of the Republic of Sierra Leone, by Mr Michel Hauswirth Deputy Director-General for Development on behalf of the Commission and by Mr P. Thomas in respect of matters under the responsibility of the European Investment Bank.

EDF

Following a favourable opinion delivered by the EDF Committee (208th meeting of 14 January 1986) the Commission has approved financing in respect of the following projects:

Cameroon, Ghana, Côte d'Ivoire, Mauritius, Senegal and Zaïre

Reinforcing scientific and technical research capacity in the field of food and nutrition

Fifth EDF

Grant: ECU 1 500 000

The project's aim is to strengthen existing national capacity in the sphere of food and nutritional research. This will be achieved through the implementation of an integrated regional programme involving interdisciplinary research and development, advanced training and the spread of information and know-how. The programme will concentrate on food losses and on improving the nutritional quality of food products, with a view to increasing food availability in Africa.

The project will involve:

(a) in the case of the seven institutes which will carry out research in Cameroon, Ghana, Côte d'Ivoire, Senegal and Zaïre:

— the supply of research equipment and material

— training/retraining for senior staff;

(b) in the case of the institutes in each of the six beneficiary countries specializing in food science and technology (including Mauritius):

— a training course in research planning and management

— production and distribution of scientific information;

(c) technical assistance will be provided for monitoring and coordinating the project.

Member countries of CILSS

Renewal of technical assistance to the Executive Secretariat of CILSS

Fifth EDF

Grant: ECU 170 000

The Interstate Permanent Committee for Drought Control in the Sahel (CILSS) was set up in 1973 as part of the attempt to provide a regional solution to the problem of drought and desertification and the food crises they brought in their train. The member countries are: Burkino Faso, Cape Verde, Chad, Gambia, Mali, Mauritania, Niger and Senegal.

The role of CILSS in tackling the continuing drought is to help the member countries to establish and carry out policies for organizing the production and marketing of products while keeping in view the fundamental criterion of preservation of ecosystems (control of desertification).

Among the operations initiated by CILSS in pursuit of the above aim, the Community has financed from EDF resources the following three projects:

(a) multiple-site trials of improved varieties of millet, maize, sorghum and cowpeas;

(b) monitoring by remote sensing of renewable natural resources;

(c) improvement of agricultural statistics through a project for continuous monitoring.

Against this background, technical assistance was provided for the Executive Secretary to help the departments under his supervision in their various tasks—economic analysis, planning, implementation of food strategies, cereal policies, and so on—with particular reference to the monitoring of regional programmes financed by the EDF.

Sierra Leone

Port Loko Agricultural Development project

Fifth EDF

Grant: ECU 6 000 000

The project will be located in the Port Loko District which is being merged with the Kambia District to form the North Western Agricultural Region (NWAR) of the restructured Ministry of Agriculture and Natural

Resources (MANR). Its main aim is to increase the production of rice and to demonstrate the production capacity of the inland valley swamps (IVS) within the context of improved agricultural practice. It will thus contribute to raising food self-sufficiency and saving invaluable foreign exchange through the reduction of food imports.

Congo and Central African Republic

Assistance to the "Service Commun d'Entretien de Voies Navigables"

Fifth EDF
Grant: ECU 3 300 000

The Congo, Oubangui and Sangha rivers constitute an international waterway linking the river ports of the Central African Republic to Brazzaville in the People's Republic of the Congo and, thence, by means of the Congo-Ocean railway, to the sea port of Pointe-Noire. This network provides their major access to the sea for Chad and the Central African Republic and is the only outlet for wood from the Central African Republic, northern Congo and south-east Cameroon. Traffic on it, particularly of wood on the Sangha, is increasing continually. Large drops in the water level in recent years and a shortage of suitable equipment have meant that the Service Commun d'Entretien des Voies Navigables (Joint Department for the Maintenance of Navigable Waterways — SCEVN) has been unable to ensure that the rivers are navigable throughout the year.

The aim of the project is to improve and increase the existing equipment to ensure that the Congo, Oubangui and Sangha remain permanently navigable.

Zimbabwe

Fruit and Vegetable Development Programme

Fifth EDF
Special loan: ECU 2 275 000
Grant: ECU 625 000

The purpose of this project is to improve production and marketing of vegetables and fruit in the Communal Lands of the Mashonaland East Province.

The project aims to influence, over a four year period, a total of 4 100 smallholder vegetable growers within

a production area of 713 ha. and 1 200 mango producers with approximately 45 000 trees.

The EDF funds will provide the means to strengthen the extension services in the horticultural field and alleviate marketing constraints. Two assembly markets, provision of transport, improvements to the main wholesale market in Harare, appointment of project management staff and technical assistance which will carry out further production and marketing research, will be the components of this project.

ACP States and OCTs

Overall commitment authorization

Fifth EDF
Grant: ECU 25 000 000

Overall authorization to commit ECU 25 000 000 for the financing by accelerated procedure of technical cooperation and trade promotion schemes in favour of the ACP States and the OCT. ○

RINDERPEST

The Community supports the OAU programme

A vast and ambitious new programme to combat livestock disease throughout the whole of black Africa has just been agreed by the EEC Member States. A total ECU 50 m will be provided in EEC aid for an OAU-sponsored plan to help African livestock producers reduce and ultimately eradicate the serious disease which has hampered successful cattle production for years — rinderpest. This is one of the largest aid grants to be given under the Lomé Convention for any single project and underlines the EEC's commitment to economic development in Africa.

The project sets out a two-pronged approach to the problem of rinderpest in Africa. The first is the emergency stage, for which ECU 23 m have been earmarked. This will be used to finance immediate vaccination, disease control and monitoring schemes in those African countries hardest hit by the disease — Ethiopia, Sudan, Mali, Burkina Faso and Nigeria. The second is a longer-term programme designed to step up research and monitoring, set up vaccination banks, improve

cooperation between health centres, reduce the risk of depletion of natural resources and help African governments formulate their animal husbandry policies so as to safeguard against future risks. The remaining ECU 25 m will be used to finance this stage of the programme. All African members of the Lomé Convention are eligible to benefit from the scheme and already 34 African countries have asked to take part.

The project was approved in principle by the Committee of the European Development Fund (EDF) on January 14. But, because of the large financial commitment involved, the huge amount of ground to be covered and the important environmental and follow-up aspects of the project, the EEC Member States decided to tread carefully. They have agreed to release the first ECU 35 m for the emergency stage immediately and hold the remainder in safe-keeping until plans for the second stage have been finalized. ○

EIB

Equatorial Guinea: ECU 6 million for a hydroelectric scheme

As part of a programme of measures to rehabilitate the country's electricity-generating capacity drawn up and financed with the support of several lenders, the Government of Equatorial Guinea is constructing a hydroelectric power station with an installed capacity of 3.6 MW on the River Riaba in the south of the country, together with the necessary transmission line to supply electricity to the capital Malabo. The European Investment Bank has approved two loans totalling ECU 6 million⁽¹⁾ to the State for this project. A contract for a first tranche of ECU 2 m (drawn on funds provided under the Second Lomé Convention) was signed on 17 December 1985.

The announced loan is a conditional one⁽²⁾, granted at a rate of interest of 2% and for a term of up to 25 years

(1) The conversion rates used by the EIB for statistical purposes during the current quarter are those obtaining on 30 September 1985, when 1 ECU = £0.59, IR £0.72, US \$0.83, CFAF 337.573.

(2) A loan of which the repayment arrangements, rate of interest and term vary according to fulfilment of conditions specified at the time of contract signature.

from risk capital resources managed by the EIB. It will help the State to subscribe to the capital of the national electricity company (ENERGE), which is now being created, and to make the company a shareholder's advance, putting it on a better footing to develop its activities.

At present 60% of electricity demand in the capital is met by a diesel power station at Malabo itself and 40% by small private generating units with high fuel consumption and low performance. The new power station, costing an estimated total of ECU 22.2 million and expected to be operational in summer 1988, will reduce recourse to these diesel units to a minimum and enable the company to cope with the expected growth in demand.

The project has also been submitted to the Caisse Centrale de Coopération Economique (CCCE, France). It comprises the construction of a reinforced earth embankment 200 metres long and 14 metres high, forming a reservoir of 35 000 cu.m initially, a penstock 1 km long, the power station itself equipped with two turbo-alternator sets, each with a capacity of 1.8 MW, a 75-km transmission line to the capital, a transformer station and a sub-station and various ancillary equipment.

Central Africa: ECU 2.6 million to expand the port of Brazzaville

The European Investment Bank is advancing the sum of ECU 2.6 million ⁽¹⁾ (approximately CFA F 900 million) to facilitate the handling of and future increases in container traffic at the river port of Brazzaville. This is a project of regional dimensions that will benefit not only the Congo but also the Central African Republic, Chad and western Cameroon.

The loan is being granted under the Second Lomé Convention to the Banque de Développement des Etats de l'Afrique Centrale (BDEAC) over a 13-year term with interest charged at 5.55%, after deduction of a 3% interest subsidy drawn from the resources of the European Development Fund. BDEAC, instituted in 1977, is the development bank for the Central African Customs and Economic Union, which embraces Cameroon, the Central African Republic, the Congo, Gabon, Equatorial Guinea and Chad.

Costed at close on CFA F 1.9 billion and scheduled for completion late in 1987, the project covers both works—a new, 60-metre quay and 6 800 square metres of container stacking surface—and procurement: an electric crane and forklifts and tractor-trailers for handling cargo. Immediate responsibility for implementation rests with the Agence Transcongolaise des Communications, the public agency in charge of all rail and river transport operations in the Congo.

The project will help the region to keep abreast of growth in containerized cargo traffic, in particular sawn timber for export, which is projected to rise between now and 1995 from 45 000 to 180 000 tonnes, the volume of containerized handling within that total being expected to move from 21% to 50%.

Barbados: ECU 5.6 million for port improvement at Bridgetown

Container shipping has emerged as one of the most efficient ways of handling island freight traffic, and the authorities in Barbados have accordingly decided to equip the port of Bridgetown with purpose-built installations to accommodate container vessels. The European Investment Bank is providing a ECU 5.6 million ⁽¹⁾ loan under the Second Lomé Convention to finance the project, which is considered vital for the development of economic activity in this ACP country.

The 15-year loan carries interest at 5.6% after deduction of a 3% interest subsidy drawn from the resources of the European Development Fund. The borrower is the Barbados Port Authority, the public agency responsible for the administration of the port at Bridgetown.

The project, scheduled for completion by the end of 1987, includes procurement and installation of a 40-tonne gantry crane of 100 feet over-reach, straddle carriers and fork lift trucks, the improvement of almost 3 500 square metres of container stacking area and the development of a new, 4 700 sq.m. hardstanding, the expansion of an electricity substation

and various allied works costing an estimated total of ECU 11.2 million.

The Port of Bridgetown also serves as a clearing station for cargo headed for such nearby ACP States as St. Lucia, St. Vincent and the Grenadines, Dominica and, to a lesser extent, Guyana. ○

VISITS

● President Abdou Diouf visits the Commission

Abdou Diouf, President of Senegal and, since June 1985, Chairman of the OAU, paid an official visit to the Commission on 6 February 1986. He held discussions with President Jacques Delors, Vice-President Lorenzo Natali and various other Members of the Commission.

His visit was an immediate follow-up to the Ministerial meeting in Lusaka, at which a joint communiqué had been issued. President Diouf stressed that a policy of global sanctions against South Africa was vital if pressure was to be stepped up.

One important matter discussed was the groundwork for the next special session of the UN General Assembly in New York on 27-31 May when the economic crisis in Africa is due to be debated.

The aim of the presidential visit was also to put the Community in the picture about various subjects (agriculture and debt) up for discussion at the special session and the problems of reconstituting the sources of the big multilateral agencies — the UNDP, IDA, IFAD and the FAO.

EEC-Senegal cooperation

Discussions also covered bilateral EEC-Senegal cooperation, notably the reconstitution of Stabex resources and trade (i.e. the Community rulings on the maximum aflatoxin content of imported groundnut products and consignments of tuna unloaded in Community ports).

Cooperation between Senegal and the EEC has increased constantly under the Yaoundé and Lomé Conventions. Under Lomé I (1976-80) it was worth something like ECU 200 million, but under Lomé II (1980-85) the full Community aid programme for

⁽¹⁾ Conversion rates used by the EIB for statistical purposes during the current quarter are those obtaining at 30 September 1985, when 1 ECU = £0.59, IR £0.72, US \$0.83 and B \$1.4259.



The arrival of President Diouf at the European Commission where he was met by Jacques Delors, President of the Commission (r.) and Lorenzo Natali, Commissioner for Development

Senegal was an estimated ECU 270 million. These figures cover the different aid instruments of the Convention, i.e. financial and technical cooperation, regional cooperation, Stabex and so on.

On 9 July 1985, the indicative programme laying down future financial and technical cooperation was signed in Dakar. It runs to ECU 97 million and puts priority on food security and anti-desertification.

Stabex

One of the essential sectors of Senegal's agriculture—groundnuts and their derivatives—is covered by Stabex and the country had transfers worth ECU 124.2 million from the Fund to cover groundnut export earning losses over the 1976-1985 period.

EEC-Senegal fishing agreement

A new EEC-Senegal fishing agreement was signed in 1984. It provides fishing facilities in Senegalese waters for trawlers from the Community — which gives financial compensation (of ECU 8.7 million) in exchange.

The financial protocol annexed to the Agreement came to an end on 14 January this year, but was extended until 30 April.

Negotiations are now under way for a two-year renewal of this protocol, this time for the enlarged Community including Spain and Portugal, Portugal being linked to Senegal by a bilateral agreement until April 1987.

EEC-Senegal trade

The EEC is Senegal's principal trading partner. About 50% of the country's exports and 60% of its imports are with the Community. Since 1981, the EEC's trade balance with Senegal has gradually decreased from ECU 319 million to ECU 121 million (1984).

• Lorenzo Natali in Botswana...

Development Commissioner Lorenzo Natali paid an official visit to Botswana from 23-25 January during which he held discussions with Quett Masire, Botswana's President, with Vice-President Mmusi, Foreign Affairs Minister Chiepe and Trade and Industry Minister Mwako.

They reported that Botswana was pleased with the work of the EDF and the 6th EDF (Lomé III) indicative programme and it was clear that the Government was satisfied with the aid the Community had provided for its tourism and wildlife protection policy.

Both sides expressed concern about the consequences of the drought, in spite of the fact that rain had fallen a number of times earlier in the year.

Mr Natali visited Lobatse, a livestock raising and industry centre (the country's second export sector, with earnings of ECU 30 million).

During an exchange of views on Southern Africa, President Masire said he hoped to see greater international

pressure on South Africa for apartheid to be done away with.

...in Swaziland

The ACP-EEC Joint Assembly in Swaziland was an opportunity for Vice-President Natali to make an official visit to the Prime Minister, Prince Bhekimpi Dlamini, and members of the Government. Both Mr Natali and the Prime Minister expressed their satisfaction at the good relations that existed between Swaziland and the Community and both said they were satisfied with the cooperation of the two previous Conventions and what had already been accomplished under Lomé III.

A financing agreement for a special loan worth ECU 3.2 million to build the Matsapha vocational training centre, the last major commitment of Lomé II, was signed in Mbabane on 27 January. This is the country's first school for skilled car mechanics, builders and bricklayers, electricians, mechanics and commercial workers.

The Lomé III indicative programme, signed in November, would be concentrating EEC aid on rural development, including vocational training in whatever sectors would help improve the standard of living in the country areas, and was therefore a proper continuation of the schemes that had been run previously. Lorenzo Natali said he was impressed at the effort the Government had put into training young people and especially to finding remunerative rural activities. The land distribution issue was also raised and Mr Natali found the authorities had taken a constructive approach to this too.

The exchange of views covered of course, the political situation in Southern Africa. The Prime Minister explained that his country was opposed to violence, which he considered was something that could never ensure peace.

He also urged Commissioner Natali to pursue reflection on Swaziland's needs and said he hoped the Community would continue to be a major source of support in reaching the country's development aims.

...and in Zambia

Immediately prior to the meeting between Frontline States and European Community Foreign Ministers

meeting in Lusaka, Vice-President Natali paid an official visit to Zambia on 31 January and 1 February.

During his visit, Mr Natali held extensive discussions with President Kaunda, Prime Minister Musokotwane, members of the Central Committee and Cabinet Ministers on issues relating to the implementation of Lomé II projects, to priorities under the recently agreed Lomé III programme, and to current Sysmin operations. Vice-President Natali was also briefed by the Zambian authorities on the serious problems confronting their country as a result of the destabilizing impact of the apartheid system, with its devastating impact on regional transport arrangements.

In this context, particular reference was made to the importance which Zambia attached to the work of SADCC and the PTA (Preferential Trade Area for Eastern and Southern Africa).

During his visit to Zambia, Mr Natali had an opportunity to attend the National Assembly to hear the Finance Minister Mr Mwananshiku introduce the 1986 budget measures. The Vice-President was also able to visit the EDF-financed maize development programme near Kabwe, and to see something of the agricultural improvements resulting from the construction of feeder roads, enhanced extension services and new credit facilities. ○

Mali

Here ECU 7 million should cover an early warning system, one-off developments in the transport system, small decentralized water engineering schemes and rehabilitation and medico-nutritional schemes in the Timbuctu and Gao areas.

Mauritania

This country gets ECU 6 million, 85% of which will go to agricultural recovery schemes.

Niger

The ECU 8 million allocated to Niger will go mainly to support operations for the Niger Food Products Board, the building of storage sheds, the installation of hydraulic infrastructure and off-season crops and the supply of draft animals.

Sudan

More than half this country's ECU 20 million will be channelled into rehabilitation of the road and rail transport systems. There are also plans to do something about the early warning system, supply agricultural inputs, help with reafforestation and run village water engineering schemes.

Chad

This country gets ECU 8 million and 45% of it will go to help displaced persons. The rest will be used to improve the transport infrastructure, set up an early warning system and constitute buffer stocks.

The general idea is to tackle urgent problems for which immediate solutions can be found so as to help prevent the reappearance of problems linked to famine, essentially by boosting the country's ability to cope with its own problems and getting agricultural productivity off the ground again. These schemes are unlike the Lomé ones which will take over from them and cater for the medium and the long term where this is appropriate.

They are the outcome of the strategy which the European Council of Milan produced to combat famine in June 1985 and they should consolidate the results of the Dublin Plan, an example of a combined effort by the Community and its Member States.

The rehabilitation and recovery schemes are to be started at once. The

REHABILITATION AND RECOVERY PLAN FOR SIX AFRICAN COUNTRIES

Less than three months after Development Ministers agreed (4 November 1985) on a rehabilitation and recovery plan to help the economies of eight of the African countries worst hit by drought (see our January-February issue), the Commission has decided to run a series of operational programmes, worth ECU 100 million, to be implemented rapidly in the course of 1986 and in early 1987. The financing agreements were signed in Brussels on 20 January by Lorenzo Natali and by representatives from Ethiopia, Mali, Mauritania, Niger, Chad and Sudan. The Commission had already approved financing of ECU 8 million for

emergency and rehabilitation programmes in Angola and Mozambique on 10 December.

Ethiopia and Sudan will be the main beneficiaries of this Plan. The operational programmes must, by definition, be constantly updated in the light of trends in the needs and situations of the countries in question. When these operational programmes were drawn up, it was planned to concentrate 68% of the ECU 28 million allocation on agricultural recovery (including the purchase of inputs) in the north east and spend the rest on spare parts for trucks, rural water supply systems and the building of sheds.



From l. to r., the Ambassadors of Sudan, Mali, Mauritania, Chad and Niger and the representative of Ethiopia who signed the Rehabilitation Plan, with Mr Dieter Frisch and Mr Lorenzo Natali for the Community

formation of a Task Force to coordinate and activate operations, the considerable flexibility of funds allocation a simplification of the procedures laid down in the Convention and the efforts which the recipient countries themselves make should mean the work can be accomplished within the prescribed time.

Close coordination by Commission Delegates, representatives of the Member States and other donors out in the countries, plus coordination within the Community in Brussels, should make a great contribution to the coherence and speed of implementation of the Plan. ○

ACP EMBASSIES

The new Ambassadors of Zaïre and Mauritania have presented their credentials to the Commission.

Zaïre

Ekila Liyonda, Zaïre's new Ambassador, is a lawyer with a doctorate from the Catholic University of Louvain (Belgium) where she was a student from 1968 to 1974. Mrs Liyonda, now 38, who began her career as a legal adviser with Agence Zaïre Presse (AZAP), moved to the Office of the President of the Republic in 1981, when she became Secretary-General for Women. Rapid promotion led to her appointment as State Commissioner for Women and Social Affairs, a post she held until the recent move to Brussels. She presented her credentials on 3 February.

Mauritania

Mauritania's new Ambassador to the EEC, 48-year old Mr Ould Allaf, presented his credentials to the Commission on 3 February.

The new Ambassador, a civil engineer who qualified at the Ecole Nationale Supérieure des Télécommunications in Paris, held a high-level post in telecommunications with the

OMVS, the West African Senegal basin development organization, before joining the diplomatic service in 1972. He has been several times a Minister (in particular for Posts and Telecommunications, Education and Culture) and was Ambassador to Paris in 1983-85. He is already familiar with Brussels, as he was Ambassador to Belgium, the Netherlands and Luxembourg in 1973-75. ○

EEC-MADAGASCAR FISHERIES AGREEMENT

The EEC-Madagascar fisheries agreement was signed in Antananarivo (Madagascar) on 28 January this year by Joseph Randrianasolo, the Madagascar Minister for Livestock and Fisheries, Antonio Cardoso e Cunha, the Fisheries Commissioner, and Malcolm MacBain, the UK Ambassador to Madagascar and representative of the EEC Council.

The agreement, which was initialled in Brussels on 21 December 1984, lasts for three years and is renewable. It covers tuna, shellfish and other species. It includes provisions on Community involvement in projects linked to fisheries development (ECU 900 000 minimum) and the financing of a scientific research and training programme. ○

GENERAL INFORMATION

62 States take part in Paris in the first International Conference on Trees and Forests

An important international conference took place in Paris from 5 to 7 February on the subject of trees and the forests. It marked the first occasion, since ecology became a major issue, that Heads of State and government, as well as senior officials from

62 countries met together to plan and sketch out concerted action to combat the 'acid rain' threatening destruction to the forests of industrialized countries and the galloping desertification in Africa.

The conference, entitled 'SILVA', was the brainchild of the French President and it was François Mitterrand who opened the conference in the Sorbonne in Paris in the presence of, among others, the Heads of State of

On the left Mrs Ekila Liyonda... and on the right Mr Ould Allaf with President Delors



Senegal, Burkina Faso, Djibouti and Somalia, the heads of government of the Federal German Republic, Ireland, Belgium and ministers from almost all the independent African countries, as well as the Scandinavian countries; representatives from Japan, the USA, the German Democratic Republic, Hungary, among others; the Director-General of the FAO and the President of the Commission of the European Communities, Jacques Delors.

It is obvious that in the current welter of economic and political problems, the menace of disappearing forests and the eventual death of the tree might appear to be a problem of less than pressing urgency. But the essence of the problem is not the short, but the long term and it was this dimension of the conference which the French President underlined in his opening speech. "Modern man," he declared, "is proving that he can conquer space and tame it, but he has often forgotten how to deal with time." Of course it was necessary, he added "to deal with the present. Even five-year plans seem audacious. In military matters, some decisions will determine matters for twenty years, but the cycle of the tree is that of centuries." It remained true, however, that even when dealing on the scale of centuries, there was a need for urgent action, since, President Mitterrand declared, "rarely has the forest been under such a threat." The causes of the threat are numerous: pollution and a variety of diseases in Europe, deforestation in Sahelian Africa, and even in the well-watered regions of the continent. Hence the need for urgent action and the long-term nature of the actions to be undertaken: "We must hurry to make a start. Saving trees and forests is not only a case of working with space, it is, in a certain sense, dealing with the conquest of time", declared the French President.

The Conference, opened by President Mitterrand and chaired by René Souchon, deputy Minister of Agriculture in charge of agriculture and forests, heard several more speeches before dividing up into two working groups. These were, respectively, the 'Oak' Group whose task it was to study the problems of, and the possible solutions to, the disappearance of European forests; and the 'Acacia' Group made up of African delegates, charged with taking stock of the progress of the fight against deforestation and desertification and presenting pro-



posals for an international initiative to intensify the fight.

The Conference ended with the adoption of a number of resolutions and, most importantly, with the 'Paris Appeal for Trees and Forests', requesting a solemn engagement to undertake the conservation and promotion of trees and the forests "in the interests of this and future generations". Three types of proposals were put forward in connection with this: national, European and international. Each country should embark on measures of its own or of a regional nature to safeguard, develop and multiply trees in the urban and rural environments; at the European level, a Community policy should be developed very rapidly, exactly as policies have been developed in other areas of economic and social life in the Community. Thus, for example, apart from financial resources, a network of European researchers, called EUROSILVA, will be established to undertake, for the first time anywhere, scientific research into tree physiology; finally at the international level, financial and technical assistance will be given to African countries with the aim of finding lasting solutions to the problems of desertification and deforestation. France, the Netherlands and other participating countries such as Japan have committed themselves either to doubling or at least to substantially increasing their aid in this field.

The Courier will be returning to this subject with more detailed results of the Conference in its next issue. ○

L.P.

ENVIRONMENT

First Conference of African Ministers

For the first time, in December 1985, African Ministers met in Cairo to discuss the environment. The idea was to stop the deterioration of the African environment and reverse the trend to meet the continent's food and energy requirements.

The conference, attended by 87 African experts and 50 observers, looked at a cooperation programme based on the report produced by the UNEP Executive Director in collaboration with the UN Economic Commission for Africa and the OAU. This programme suggests setting up eight specialized regional networks, regional pilot projects covering local development in 150 villages and 30 herding zones in semi-arid areas and sub-regional projects dealing, in particular, with anti-desertification and the development of river and lake basins.

Conference institutionalized

A large majority of the African countries agreed with the programme, although some will not be giving their final answer until the Conference Secretariat has come up with more precise details of the duties of the cooperation structures.

The meeting decided to institutionalize the conference with sessions every two years, the next one being in 1987, alongside the UNEP administrative council in Nairobi. ○

FOR THE RECORD

Coastal erosion: the Togolese Government puts the record straight

An article on coastal erosion in Togo was published in the September-October 1985 edition (n° 93) of The Courier. The author of the article, Alfred Lamers, former Civil Engineering Adviser to the EEC Delegation in Lomé, expressed, of course, his own personal opinions. The Togolese authorities, through their Planning and Industry Minister Yaovi Adodo, have now set the record straight, as they feel that the article "contains errors that

might mislead the readers". This is what they say.

"First of all, it is not the Guinea Current (a general oceanic phenomenon) which carries sand along the western part of the Gulf of Benin, but the longshore drift, a current generated locally by the obliqueness of the coast in relation to the direction of the Atlantic swell. This carries something like 1.5 million m³ p.a. and affects an area of 400-500 m out from the shore. Its direction is constant throughout the year as the direction of the swell varies little.

The author also seems to ignore the way this type of protection works. A groyne only stops shore shift while it is being filled, as movement is completely re-established afterwards.

In the case of the Togolese coast, the terms of reference drawn up by the national technical services say that the proposed protection must not affect any other part of the coast.

This is why we have used short groynes. Since sediment is shifted in an area 400-500 m out from the beach, 60 or 80 m groynes are only going to stop some—and only some—of the sediment on a temporary basis. So, even while the groynes are being filled, only a small percentage of the mass of moving sand is going to be stopped.

It is also worth noting that the total volume of sand stored by the whole Togolese coastal protection system will be around 60 000 m³—equivalent to around 15 days worth of shifted sediment at any one point along the coast.

So it is wrong to suggest that the groynes built to stabilize Togo's shoreline will have any effect on Benin.

Is there any need to point out that groynes are the most popular method of controlling coastal erosion in the world? If they had all the negative effects the author suggests, scientists would have been alerted years ago and technicians and governments would be switching to something else." ○

IFAD

2nd reconstitution of the Special Fund for Africa

The ninth session of the Board of Governors in Rome on 21-24 January

decided to bring the Fund up to \$460 million — \$274 million of it to come from the OECD and \$186 million from the OPEC countries. The new Fund, covering 1984-86, is relatively small (less than half the previous Fund), but IFAD activities will be able to be maintained at an acceptable level because of the special programme for the countries of sub-Saharan Africa hit by drought and desertification.

The Board of Governors approved the launching of a first part of this programme for a total \$80 million.

The EEC's 1986 budget includes ECU 5 million to enable the Community to boost its cooperation with IFAD by cofinancing or participating in the Africa programme. ○

FOOD AID 1986

The Council has established the 1986 Food Aid Programme. The quantities of the products are as follows:

- cereals: a first tranche of 927 700 tons and a second tranche which may reach 232 300 tons;
- milk powder: a maximum of 94 100 tons;
- butteroil: a maximum of 27 300 tons;
- sugar: a maximum of 3 900 tons;
- vegetable oils (seed oils and olive oil): a maximum of 8 600 tons;
- other products: quantities equivalent to a maximum of 121 824 tons.

Emergency reserves: the Council has decided on food aid in the above-mentioned products to deal with exceptional food shortages up to a maximum of 386 700 tons of cereal equivalent. (The Commission, while not opposing this unanimous decision, has underlined the need for a higher reserve and has reserved its right to make a new proposal which will ena-

ble it to engage all the funds provided for in the budget). ○

EMERGENCY AID

Angola and Mozambique

The situation in Angola and Mozambique, where internal fighting has aggravated the effects of drought, is critical. Both Governments have launched appeals and the Commission has responded by deciding on emergency aid worth ECU 8 million. It took the decision on 14 December 1985. In Angola, the aid, which is destined to finance medical schemes and help get agriculture off the ground again, will be channelled through the ICRC. In Mozambique, it is humanitarian organizations operating locally (Médecins sans Frontières-Belgique and the French Volontaires du Progrès, Care France and Bioforce) which will be implementing the Community contribution. This will involve meeting the most urgent needs of the afflicted population and laying the foundations for a revival operation.

South Yemen

The Commission has just decided to send ECU 450 000 worth of aid to South Yemen where recent events have caused the death of thousands and done enormous damage to the town of Aden. Water supplies have been badly hit and unsanitary conditions have led to cholera and typhoid epidemics.

The money meant that immediately a plane carrying two teams of doctors and surgeons from several countries in the Community and various organizations, plus drugs and medical and logistical supplies, was able to fly out to this country, where Médecins sans Frontières-Belgique is coordinating the action. ○

EUROPEAN COMMUNITY

Signature of the European Single Act

Nine of the 12 Member States of the Community endorsed the Single Act

on EEC Treaty reforms in Luxembourg on 17 February. It was adopted

by the European Council last December. The other three Member States, Italy, Denmark and Greece, attended the official ceremony, although they did not, for a number of reasons, sign the document.

Denmark, in particular, whose Parliament is unenthusiastic about the small amount of progress these reforms have notched up, was waiting for the results of a referendum on 27 February. Italy is hoping only to agree formally once everyone is ready to sign and Greece has said that it intends to rubber-stamp the act after the Danish referendum.

When he presented the Agreement for signing, Mr van den Broek, the President of the Council, said he was attending the ceremony with "mixed feelings... a certain solemnity... and certain sadness because not everyone is signing as we had hoped".

He felt that, "in spite of the inevitable imperfections, the Single Act is obviously progress, a step in the right direction. It is trying to provide an answer to the essential questions facing Europe today that are decisive for its future". Mr van den Broek said that the Community was attempting to take up three major challenges with these reforms — to lose no time in creating a proper, completely free market by boosting the Community's decision-making powers so Europe would be tangible to the people at last, to make the institutions more democratic by involving the European Parliament more in the legislative processes and to set up a legal framework as a platform for the Community's future activity in science and technology.

The second merit of the Single Act, said the President, was that it had "struck a balance between contradictory and contrasting aspirations and demands and thereby assured the future. Building Europe also means accepting Europe in all its diversity and with all its contrasts".

The President then spoke on behalf of all the Members about to sign, saying that they had the firm political will to implement this Community reform without delay. "The Act opens the way to progress. Without it, there would be a threat of regression and disintegration."

STOP PRESS

Following the positive result of the referendum in Denmark, that country signed the Single Act on 28 February. Italy and Greece also signed on the same day.

• President Delors outlines the Commission's 1986 programme to the European Parliament

Jacques Delors, President of the European Commission outlined his institution's programme for the year to the European Parliament at Strasbourg on 19 February.

He began on a note of cautious optimism: "1986 should be a year of stewardship, but also a year in which we implement the reforms agreed upon", he said, and then went on to sound a note of warning.

"But the Commission will also look beyond the Community's frontiers to boost Europe's international role in a year which could either be a year full of opportunity or a year fraught with danger. It will not be easy for the Commission, whose right of initiative in these areas is often challenged by certain Member States. Nor will it be easy for the Community which is patently incapable—and this is one of its weaknesses—of speaking at the right time with a single voice."

The Community's first task was to ensure that the completion of the Europe-wide frontier-free market was rendered irreversible. He cited, as steps on that path, the liberalization of capital movements and closer cooperation in research and technology. And he launched this appeal: "If a solemn appeal were to be made today, to preserve the vitality of our Community, it would be an appeal to all our governments to step up cooperation rather than multiply preconditions. Europe needs this shot in the arm if it is to regain self-confidence. Here, as in many other areas, the Commission needs to know that it can count on the support and initiative of the Members of this House, eager to set a practical example of European cooperation".

President Delors went on to affirm his support for the Common Agricultural Policy, citing it as "an essential factor in promoting the economic and social cohesion of the Community of

Twelve" but at the same time he recognized the need to fight surplus production.

The Luxembourg Agreement was touched upon, in relation to the Institutions, and President Delors was at pains to underline the key words — efficiency, simplicity and flexibility.

Vigilance and solidarity

In turning his gaze onto the international scene, President Delors cited three major preoccupations — the slump in oil prices, the weight of indebtedness and the opening of a new round of trade negotiations. "The Commission will not relax its efforts to bring the positions of the member countries closer together on the energy problem, indebtedness, and the fundamental issues of world trade and monetary reform," he promised.

And he went on: "Vigilance and solidarity could be the Community's watchwords".

"Vigilance to ensure that trade, monetary and financial issues are considered together, for the reasons I have already mentioned; vigilance in the search for a balanced outcome covering all areas of world trade and involving mutual concessions.

Solidarity with the developing countries, which need to export more to survive and which cannot afford to be left out of the race in new areas such as services and advanced technology.

We must also demonstrate solidarity with the Mediterranean countries, the nations of Central America and the lesser developed countries of Asia and Africa. The Commissioners with special responsibility for these areas have made and will continue to make their presence felt; they will be active politically — in the true sense of the word."

In winding up his presentation, President Delors threw down a challenge to the Parliament.

"History has shown that it is easier to overcome opposing interests and harmonize structures when times are good. A favourable economic situation could therefore help us in our task. But let me say again that we must be in a position to make the most of it by stepping up cooperation. Are the Member States prepared to do this? This is one of the questions the Commission must ask, conscious as it is of public opinion and those among us who do not even have a job." ○



INDUSTRIAL OPPORTUNITIES

PUBLISHED EVERY TWO MONTHS

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TRAINING AND MARKETING ASSISTANCE

TONGA WINS EXPORT MARKETS FOR EXCAVATORS AND BACKHOES

An unusual engineering business, based in Tonga, recently benefitted from CDI's assistance to explore EEC markets for its mini-excavators and backhoes. The company is already exporting to Pacific and Scandinavian markets.



A fully-constructed "Scandig" mini-excavator in the workshops of Scan Tonga Engineering Ltd.

One may well ask how such an operation became established in a little Pacific island state with no previous tradition in mechanical engineering. The answer to this question lies in the personality of its Chairman and the attractions of Tonga.

In 1980 Mr. Oliver Klockseth, a Swede, had created his own designs for mini-excavators and tractor-mounted backhoes. He put together finance and a management team and looked for a country where he could start manufacturing. He became attracted by a publicity campaign about the advantages of investing in Tonga. He also found that he liked

the island and felt that he could work with its people. He moved there in 1982 and set up Scan Tonga Engineering Ltd. He is currently Chairman of the company.

Initially all production was committed to the Swedish market where orders had been taken. Attention was later focussed, with success, on Australia; and an application was made for duty free access to Australia under the regional Spartecca agreement.

CDI's Tonga antenna organization, the Tonga Development Bank, has a minority shareholding in Scan Tonga. At the Bank's request, CDI visited

the factory in 1982 and subsequently opened up a correspondence with the company.

When Mr. Andrew Robinson came from England to join the company as Managing Director in 1984, he picked up the CDI correspondence and requested training assistance for eight welders.

CDI responded positively and early last year sent an expert to Tonga for two months. Three of the eight welders were trained to a high standard and passed welding tests in New Zealand. They are now certified welders and their qualifications enabled the company to tender successfully for important welding contracts.

The training also raised the company's general performance and provided the standard needed for the envisaged growth. (Turnover has doubled every year for the past two years).

The company operates three production lines:

1. Excavators (series 50B and 5B) and backhoes for mounting on tractors (series 60T and 40T) currently exported to Australia, New Zealand, Fiji, The West Coast of the USA, Sweden and Norway;
2. Steel fabrication i.e. steel trusses and frames for the construction sector;
3. Waste compactors, bins and lifting devices for waste containers.

Towards the end of 1985, CDI provided Mr. Robinson with travel assistance to market the mini-excavators and backhoes in Europe. He visited eleven companies or organizations which showed encouraging in-

Continued on page 2

Mr. Andrew Robinson, Managing Director of Scan Tonga Engineering, during his visit to CDI last year.



Continued from page 1

terest, particularly in the backhoes which would suit small farming and building operations. The equipment has also been used by Do-It-Yourself (DIY) companies and for public works projects.

Very competitive prices make these products attractive in Europe, notwithstanding freight costs from Tonga.

In the UK, Mr. Robinson found great interest among a plant hire company and among manufacturers and distributors of agricultural equipment. In the Netherlands a cooperative has put up money for a marketing study. In Belgium a metal fabrication company is interested in importing a machine for testing. Scan Tonga have submitted further requests to CDI, for assistance with the freight

costs of sending equipment to Europe for market testing.

In a visit to CDI before returning to Tonga, Mr. Robinson spoke about the economic attractions of investing in the country. He emphasized the following:

- Cheap loans, facilitating a gearing ratio impossible to achieve in Europe;
- Cheap rental for buildings;
- Fiscal incentives (no tax on dividends and no duties on imported components);
- Duty free access to the markets of developed countries.

With the quality and prices of its products, allied to a good management team and supported by good investment incentives, CDI believes that Scan Tonga is well equipped to achieve success in EEC markets. ■

JOINT ASSEMBLY

CDI - "A DROP IN THE OCEAN"

"I acknowledge the valuable work of the Centre for the Development of Industry, which has expanded its activities in recent years. But this, I regret to say, is but a drop in the ocean. More needs to be done". This is how Mr. Christopher Jackson, General Rapporteur, referred to CDI in his introductory statement to the ACP-EEC Joint Assembly, in Swaziland at the end of January.

Mr. Jackson spoke about CDI in the context of a reference to the private sector, in a futuristic address entitled "Towards 2000". Mr. Jackson stressed the importance of encouraging the private sector in ACP countries, particularly by helping small and medium-sized local businesses. "Small businesses, be they in the manufacturing or transformation sectors or in services, have the advantage of being more easily decentralised and consequently being able to generate wealth outside the big cities".

Mr. Jackson pointed out that progress with the rural economy has important implications for the development of the economy as a whole. He went on: "As the spending of the rural sector increases a new level of consumption will be created, providing a growing market for locally-produced basic consumer durables such as bicycles, radios, furniture and clothes — this represents a clear opportunity for the development of industry on a national or regional level".

In a reaction from the floor, the Ambassador of Trinidad and Tobago, H. E. Mr. Maurice St. John (a member of CDI's Joint Governing Board), welcomed the remarks of Mr. Jackson and asked him to give attention in his future report to what can be done to expand and strengthen the valuable work of CDI. He suggested that as a first measure, some of the funds being reserved for the Convention's investment guarantee and insurance scheme could be allocated for the work of CDI.

The President in Office of the European Council of Ministers, Mr. Van Ekkelen, also emphasized the importance of the Chapter of Lomé III relating to private investment. He believes that this is undoubtedly one of the major innovations of the new Convention which should open the way for that cooperation between economic operators which is indispensable to the ACP countries' development drive.

He therefore wants the Working Group envisaged by the Lomé Convention to start its work quickly on proposals for a joint ACP-EEC insurance and guarantee system and other ways of promoting private sector investment in ACP countries.

Dr. I. A. Akinrele, Director of CDI attended the Joint Assembly as an observer. He afterwards held meetings with the Swazi Minister of Commerce, Industry and Tourism Mr. Derek von Wissel, with CDI's antenna organization (the National Industrial Development Corporation) and with CDI's principal industrial client in Swaziland, Tibo Taka Ngwane. ■

VISITORS TO CDI

A distinguished recent visitor to CDI was Mr. Luiz Ameral, Portuguese Minister for Labour, who discussed the role of CDI with its Director, Dr. I. A. Akinrele.

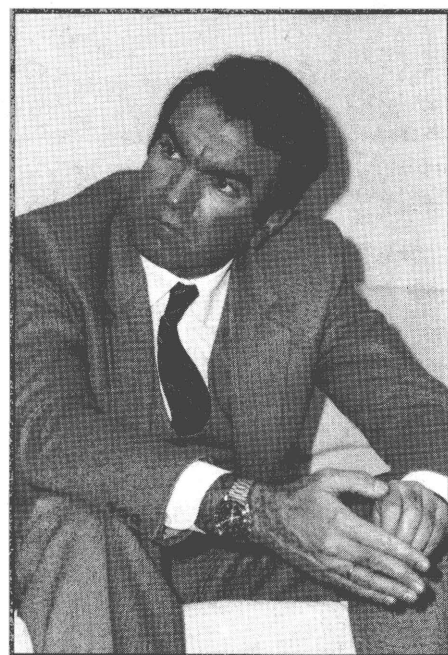
• Mr. Philippe Séchaud, Managing Director of SIFIDA, the Geneva-based financial institution for private investment in Africa, and Mr. G. Mills, Head of SIFIDA's Advisory Unit, held a day-long meeting with CDI's Directorate in November. They reviewed the operation of the CDI SIFIDA protocol of cooperation and agreed to increase the exchange of project and country information between the two institutions.

Mr. Séchaud and Mr. Mills informed CDI that SIFIDA's board has agreed to invest in a CDI-assisted milk project in Cameroon and that their interest in citronella production in Ivory Coast may be revived.

• Mr. Ruprecht Hopfen, retiring General Secretary of the Group of Seven, visited CDI in December to bid farewell to the CDI Directors and to thank CDI for its past cooperation.

The Group of Seven is a consortium of European organizations representing companies with investments in Africa.

• On 7 February, CDI Director Dr. I. A. Akinrele received 6 members of parliament from Kenya. The politi-



Mr. Luiz Ameral, Portugal's Minister for Labour, during his visit to CDI.

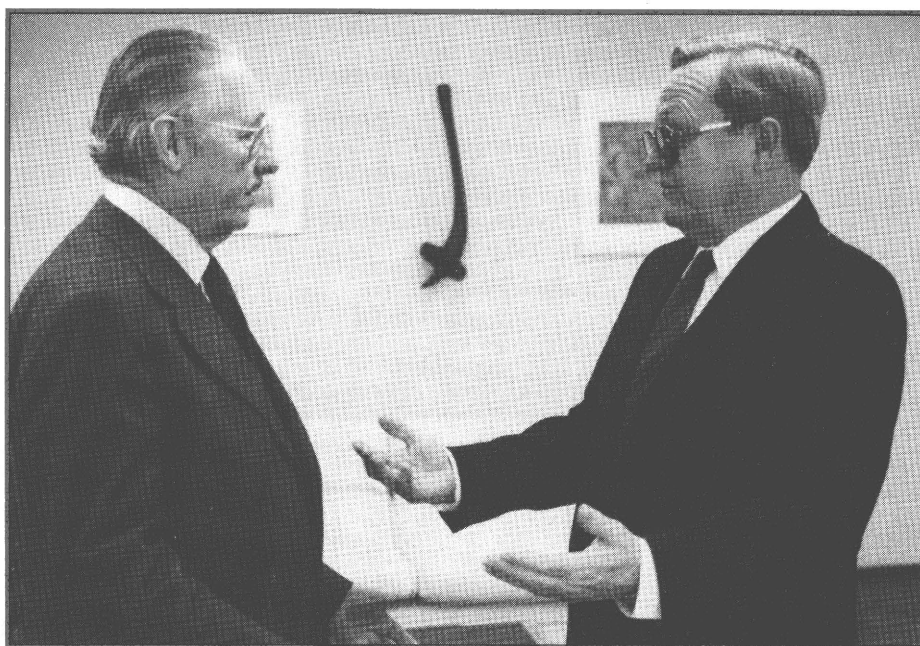
cians were pleased to learn of the services offered by CDI.

Of particular interest to them was the assistance CDI provides for the rehabilitation of existing industries.

- In October and November last, Mr. Rupeni Tuiloma from CDI's antenna organization in Fiji (the Economic Development Board), visited Brussels under CDI's Industrial Promotion Attaché Programme.

During this period Mr. Tuiloma checked on the progress of over 20 Fijian projects registered with CDI.

He also held discussions with various potential European partners concerning the production of disposable syringes and hypodermic needles, high quality footwear, papain (from papaya), honey, small leather goods, plastic wares and packaging materials, food cans, flowers and vegetables (hydroponic methods), tropical fruit wines. ■



Mr. Ruprecht Hopfen, retiring General Secretary of the Group of Seven, with CDI Deputy Director Mr. Jens Mosgard.

BURUNDI'S FIRST BISCUIT FACTORY NOW OPERATIONAL

The first biscuits to be manufactured locally have been selling on the Burundi market since last September, following start-up assistance financed by CDI.

Manufactured by the Bujumbura-based firm of Fabricchim and marketed under the name "TIP-TOP", the biscuits are increasingly being appreciated by the local population.

Production is currently at artisanal levels (the maximum capacity of the plant is 50 kg per hour) and packaging is less sophisticated than that of imported biscuits.

It is hoped that an advertising campaign — already initiated — will soon increase turnover significantly.

The project began in 1982 when the local sponsor, Mr. Gabriel Kayibigi, made the first approach to the local authorities to obtain the support and finance required.

Among those approached were, notably, the Centre for Industrial Promotion (CPI), and the National Bank for Economic Development (BNDE).

In early 1984, Mr. Kayibigi made contact with the Belgian Institute for Training and the Transfer of Technology (IBF), whose technical recom-

mendations for the project met his approval. In view of the multiplicity of suppliers and subcontractors required, Mr. Kayibigi entrusted IBF with the tasks of coordinating all purchases and supervising the transport of equipment.

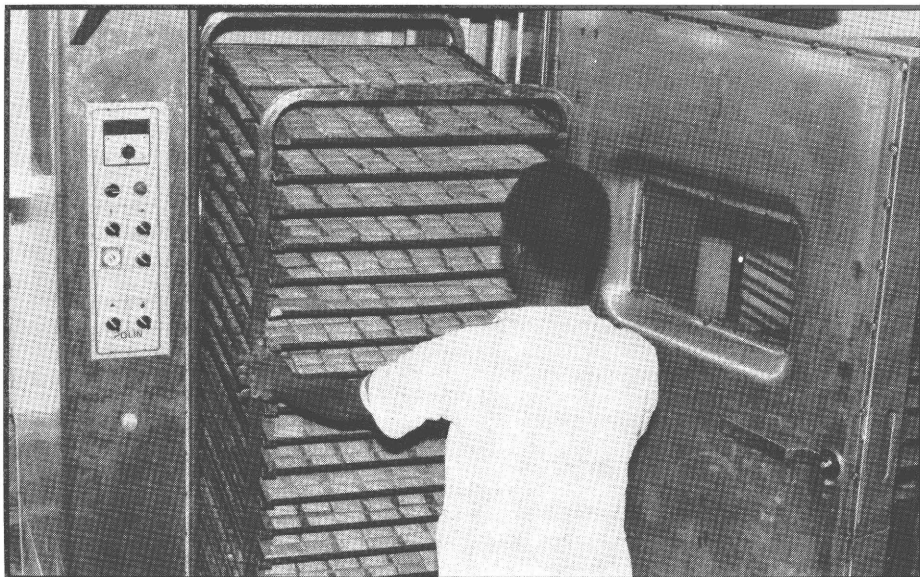
It was in mid-1985 that CDI became involved with the project, following a request from Mr. Kayibigi for technical assistance for the start-up phase.

CDI agreed to send out an IBF expert who, in three weeks, got production going, perfected the final recipe and trained production staff.

Fabricchim is at present the only biscuit manufacturer established in Burundi and has plans to extend its range to other types of biscuits.

It is interested in producing a biscuit which could incorporate more local flours and fewer fats, to further reduce costs.

This type of biscuit would be nourishing and have a long shelf-life. It should therefore be of particular interest to institutions. ■



Removing biscuits from the oven in the Fabricchim factory, Bujumbura, Burundi.

OFFERS FROM ACP SPONSORS EEC INDUSTRIAL PARTNERS WANTED



EEC industrialists are invited to contact CDI, quoting the reference number, in response to any offer outlined in this section.

However, CDI will reply to enquiries only if EEC industrialists give brief descriptions of their current operations and are prepared to provide the kinds of cooperation requested by the ACP sponsors.

Organizations reprinting these offers in their own publications, are asked ALWAYS to include the corresponding CDI reference numbers.

Electrical components and household equipment. Mauritius — 660.MUS.2.MEC.

A Mauritian company trading in household equipment and electrical components (circuit breakers, switchboards, etc.) wishes to manufacture such products for export under joint venture, subcontracting or franchising arrangements, with an EEC partner.

A prefeasibility study on switch gears and detailed information on attractive Mauritian incentives for exporting industries, are available on request.

Roller bearings. Zimbabwe — 610.ZIM.3.MEC.

A Zimbabwe distributor of bearings, oil seals and motor spares is looking for an EEC joint venture partner to manufacture roller bearings for the local market and SADCC countries. There is a possibility of reaching an annual turnover of Ecu 14.6 m (*).

A production programme proposal and the sponsor's ideas on the potential of the project, are available on request.

PROJECTS STILL UNDER PROMOTION

The 29 projects listed below were published by CDI during 1985, but remain under promotion, to find EEC technical, franchising or marketing partners and/or joint venture partners.

TITLE AND REFERENCE		DESCRIPTION OF PROJECT
BAHAMAS	Industrial battery cells and electrical vehicle batteries 660.BAH.1.MEC.	Production of 300,000 (2 volt) industrial battery cells and 240,000 (6 volt) electric vehicle batteries per year. The Bahamian sponsors and their USA partners would be interested in a triangular joint venture with an EEC company. Production will be destined for the USA, the Caribbean, Central and South American markets.
BARBADOS	Pharmaceutical products 660.BAR.1.CHE.	An existing company specialized in the conditioning and production of pharmaceutical products wishes to diversify by manufacturing simple named brand cosmetics (shampoo, etc.), either in existing plant under licence or a franchising agreement, or as a new joint venture project. The company also has the capability to take on the manufacture of clinical pharmaceuticals. This would be an import-substitution and export-oriented project. The Barbados company's distribution network would provide a sound marketing base for a European manufacturer wishing to export to Caribbean, Central American and USA markets. (Entry to the latter market is duty free under the US Caribbean Basin Initiative).
BELIZE	Safety matches 510.BEL.1.TIM.	An existing company produces matches from local wood for the local and regional markets. It wishes to improve quality and to increase exports (in particular the export of splints), with the technical expertise and investment of an EEC joint venture partner.
BENIN	Tomato concentrate and mango juice 610.BEN.8.FOO.	A joint venture partner is required for the rehabilitation of an agro-industrial complex to produce tomato concentrate and fruit juice. The existing capacity is 9,000 tons a year.
CAMEROON	Aluminium and wood workshop 610.CAM.5.TIM.	Credit and know-how required for the diversification of an existing company to supply the construction sector. Turnover is expected to reach Ecu 200,000 (*) a year.
DOMINICA	Animal feed 610.DOM.AGR.	The Dominican government, in association with private entrepreneurs, wishes to set up the production of feed for livestock, using local raw materials. An annual capacity of 1,000 tons a year is contemplated.
	Cosmetics 660.DOM.1.CHE.	A large company involved in the production of coconut oil and laundry soap wishes to diversify into products based on coconut oil (e.g. shampoo, hair cream), also cosmetic products (including those using local essential oils) and high quality gift-packaged soap. The company is interested in a franchising, licensing or joint venture arrangement. Production can be exported duty free to the USA market.

TITLE AND REFERENCE		DESCRIPTION OF PROJECT
DOMINICA (continued)	Unsweetened coconut cream 660.DOM.1.FOO.	An existing company wishes to export coconut cream in bulk to Europe, frozen in 45 gallon containers which can be shipped weekly. Total production could be about 400,000 gallons per annum. At present the company processes most of its coconut into oil for the production of soap. The priority is to find a marketing partner, but any form of cooperation with an EEC importer could be considered.
	Furniture manufacturing 610.DOM.TIM.	A private company seeks know-how and a joint venture partner to manufacture furniture for local and export markets (office desks, tables, cabinets, TV cabinets, chairs). A starting capacity of 84,000 pieces a year is envisaged.
GAMBIA	Fish and fish processing (shrimp, lobster, sole fish, etc.) 610.GAM.5.FOO.	A technical, marketing and joint venture partner is sought for a private existing company which wishes to diversify and increase its catching capacities and to set up a processing plant with a capacity of about 900 tons a year.
GHANA	Razor blades 660.GHA.1.MEC.	A company specialized in the production of razor blades has an installed capacity to produce 25 million stainless steel single blades and 60 million extra carbon blades a year. Due to technical and management problems as well as a lack of foreign currency, the company needs to be rehabilitated with the assistance of a foreign partner. There is probably a good export potential as the company is the only one of the kind in West Africa. Technical management expertise is primarily required. Equity shares are available to a foreign partner in order to finance and supply essential raw materials and spare parts.
	Bricks 660.GHA.4.EXT.	A technical partner is required who will also arrange finance for new equipment, for the expansion and rehabilitation of a brick factory. The existing capacity is 5,000 round hollow bricks and 10,000 common bricks per day.
	Knock-down furniture for export 660.GHA.6.TIM.	An existing furniture manufacturer wishes to diversify into the production of knock-down furniture. It seeks designs, know-how, market outlets and, if possible, a joint venture partner.
	Lumbers and veneers, for export and local consumption 610.GHA.8.TIM.	An existing producer of lumbers and veneers possesses three forest concessions and wishes to expand to reach an output of 300,000 m ² of veneers and 600 m ² of lumbers per month. It seeks market outlets, technical assistance and, if possible, a joint venture partner.
GUYANA	Production of veneer 610.GUY.3.TIM.	An established log producer with an output of 24,000 cm a year, wishes to expand into the manufacture of veneers and increase its production of logs. The company has its own forest resources and seeks an EEC technical and marketing partner. It would like to negotiate counter-trade (barter) arrangements in lieu of foreign exchange payments for some of the required machinery.
JAMAICA	Footwear 660.JAM.3.RUB.	A shoe manufacturer with an output of 250 pairs daily exports to the Caribbean market. He seeks a joint venture and/or marketing partner to gain access to EEC markets. Samples are available to interested parties.
	Stationery, chalk and crayons 660.JAM.3.EXT.	A technical, marketing and, if possible, a joint venture partner is sought for the expansion and diversification of an existing company. The increased output would be destined for the US market to which there is duty free access.
NIGERIA	Gari factory and cassava plantation 610.NIA.17.FOO.	A private businessman who is currently Chairman of a group of companies, wishes to set up a gari factory and cassava plantation near Ondo. The envisaged capacity of the plant is 1,176 tons a year. The output would be for local consumption and export. An EEC is partner who can supply know-how and equity is required.
	Fishing and canning 660.NIA.24.FOO.	A newly incorporated Nigerian firm wishes to set up a new project to supply the local market. It envisages chartering up to ten trawlers with an estimated annual catch per vessel of 105 tons of shrimps and 300 tons of fish. In addition, it wishes to set up a fish canning operation for the Nigerian market. It is anticipated that the plant, working at full capacity, would produce 10 million cans a year of mackerel and sardines.
	Plywood and flush plywood doors 660.NIA.3.TIM.	An EEC joint venture partner able to provide the necessary know-how, is sought by a Nigerian manufacturer who wishes to expand his output to 7,000 m ² of plywood and about 15,000 pieces of moulded plywood products a year.
	Furniture 660.NIA.4.TIM.	Nigeria's third largest log producer and sawmiller seeks an EEC joint venture partner able to provide training and know-how, to enable him to make maximum use of his timber resources by manufacturing furniture components, panelling timbers, doors, etc.
	Wood impregnation and seasoning 660.NIA.5.TIM.	A furniture manufacturer seeks an EEC joint venture partner and know-how for the establishment of a treatment unit for soft wood to supply the furniture and building industries. A capacity of 24,000 tons of treated wood per year is envisaged.
SURINAM	Saw milling and wood processing 660.SUR.2.TIM.	An existing company seeks the know-how and equity of a joint venture partner to increase his production of logs and poles and to add sawn timber to export lines. This company owns 37,900 hectares of prime forest whose standing timber has been inventoried by FAO.

Continued on page 6

Projects still under promotion (continued)

TITLE AND REFERENCE		DESCRIPTION OF PROJECT
TANZANIA	Towels and cotton cloth 660.TAN.2.TEX.	Know-how and a joint venture partner are sought to set up production of 420,000 metres a year of cotton cloth and towels, using locally available raw material. The sponsors are in the private sector and are already involved in textiles. They also run various other businesses.
	Wooden furniture 660.TAN.6.TIM.	A private manufacturer of wooden furniture and building elements wishes to expand his business and to establish links and EEC companies interested in any form of collaboration such as a joint venture, a marketing agreement or distribution. Hardwoods are locally available and the company has access to sea ports. The company is a supplier for various projects funded under foreign aid programmes and government schemes.
TOGO	Textile plant 660.TOG.2.TEX.	A State textile company wishes to restructure the production of a large plant, in line with domestic and export market demand. For this purpose it seeks the know-how and equity of an EEC joint venture partner. The plant currently has three divisions—Towelling, Hosiery and Garments (jeans). Fiscal incentives can be obtained to facilitate the restructuring.
	Palm oil, cotton seed oil and karité butter 660.TOG.4.FOO.	The State wishes to privatise and improve a seed oil plant, by selling off equity to Togolese and EEC interests. The current installed capacity can handle an annual input of 20,000 tons. Raw materials are available locally in the following quantities (1983 figures): Palm seeds 5,400 tons, karité seeds 5,800 tons, cotton seeds 13,200 tons.
ZAMBIA	Porcelain insulators and transformer bushings 660.ZAM.4.EXT.	Private sponsors with combined experience in electricity generation and manufacturing, seek an EEC joint venture partner for the production of 650 tons a year of porcelain insulators and transformer bushings. The output would be destined 75 % for the local market and 25 % for export. Estimated annual turnover: Ecu 7.86 million (*). Initial investment required: Ecu 5.7 million (*).

(*) For the value of the Ecu see page 8.

INDUSTRIAL FORUM OF CENTRAL AFRICA

The first Industrial Forum of Central Africa, which took place from 5 to 7 December 1985 in Libreville (Gabon), was intended to be a counterpart to the similar well known Forum held biennially in Dakar, for West Africa. As explained in issue No 46 of "Industrial Opportunities", CDI played an active role in the Forum.

Indeed CDI brought to the Forum some twelve African sponsors of industrial projects in the Central African sub-region (Burundi, Cameroon, Congo, Equatorial Guinea, Central African Republic, Rwanda). It also contributed to the organization of the Forum itself; and throughout the event CDI experts assisted ACP sponsors and European industrialists with negotiations.

The African sponsors invited by CDI presented potential European partners with a range of projects (in the wood, extraction, packaging, chemical, and metalworking sectors), for which they required know-



Negotiations between a Congolese sponsor and an EEC industrialist, with the assistance of Jean-Marie Delchambre of CDI (back to camera), and Jean-Pierre Mougnalet, Director of the "SME" Department at BNDC, CDI's antenna in Congo (extreme right).

how, equity participation, technical assistance, etc.

This Forum also gave CDI the opportunity to inform the African economic operators of some thirty production proposals made by European companies willing to invest in Africa. These proposals elicited a very positive reaction.

At the end of the Forum, letters of intent had been signed between three Belgian and three African companies. They concerned the production of packing bags (Burundi), lime

(Congo) and intravenous solutions (Cameroon).

These first results are encouraging. They should be followed by negotiations between the parties involved, to establish the terms of joint venture agreements.

Other contacts initiated in Libreville between African sponsors and potential European partners will take some time to show clear results. The key to success, however, lies in the existing willingness of all parties to work for the development of Africa. ■

CHAMBERS OF COMMERCE AND INDUSTRY

PROTOCOL BOOSTS COOPERATION WITH FRENCH INDUSTRY

CDI's cooperation with French industrialists received a further boost last December when it signed a protocol of cooperation with the Permanent Assembly of French Chambers of Commerce and Industry (APCCI).

The role of French Chambers of Commerce and Industry covers assistance and promotion for the overseas activities of all French firms (whether in the manufacturing, trade, or service sectors); and APCCI groups together 182 Chambers of Commerce and Industry in France (including regional Chambers and the Chambers of overseas departments).

APCCI is a national forum for the exchange of ideas and for the circulation of information among member Chambers. It also coordinates and initiates operations at a national level and its membership, taken as a whole, constitutes what may be termed a "consular network".

APCCI's purpose in signing the protocol with CDI, was to better inform French enterprises, through its "consular network", of the possibil-

ities of industrial cooperation with ACP promoters.

Under the protocol APCCI notably undertakes:

- to disseminate among Chambers information published by CDI, with the particular purpose of identifying French industrial partners for ACP projects;
- to invite Chambers to tell their members of the services CDI has to offer;
- to encourage Chambers to gather industrial project proposals from French firms, for promotion by CDI in ACP countries.

According to the terms of the protocol, CDI and APCCI agree to support each other's missions to ACP countries or to France.

The signing of the protocol of cooperation was preceded in November

by a day-long working session, in Brussels, during which there was an extensive exchange of information between CDI and representatives of eleven major French Chambers of Commerce and Industry. This session included detailed discussions about particular projects from which, it is hoped, concrete actions will result.

CDI expects to arrange similar sessions in other EEC countries with the aim of building special working relationships with professional bodies, like APCCI, who are interested in ACP-EEC industrial cooperation.

The protocol should help CDI to improve its links with small and medium-sized French industries. It should also enable French Chambers of Commerce and Industry to make use of CDI's service for the benefit of their industrial members. ■



The November session between CDI and eleven major French Chambers of Commerce and Industry. At the head of the table, facing the camera, are CDI experts Jean-Marie Delchambre (left) and Patrick Keene (right).



INDUSTRIAL PROPOSALS FROM EEC FIRMS ACP ENTREPRENEURS, PLEASE REPLY

The proposals outlined below have been put forward by EEC firms interested in setting up production in ACP countries, under joint venture or franchise arrangements with local businessmen.

ACP entrepreneurs interested in any proposal are invited to write to CDI quoting the reference number.

CDI will not be in a position to act upon letters received unless ACP entrepreneurs provide all the information requested in the box opposite. It would also be useful if they enclosed complementary information, including the latest balance sheet.

Please ALWAYS mention the CDI reference numbers when reproducing these proposals.

All equipment costs are quoted in Ecu (European currency units). The value of the Ecu may easily be ascertained from its relationship to other European currencies. On 5 February 1986:

1 Ecu = £ 0.649477
FF 6.63490
DM 2.16444

Maintenance unit for light vehicles BELGIAN PROPOSAL - 86/7

The owners of a long-established and well-known chain of maintenance workshops for light vehicles, wish to develop similar facilities in ACP countries.

To equip a standard unit which would be modest in relation to real needs, would require a minimum investment of about Ecu 350 000.

The Belgian company is willing to provide expertise and training and in certain cases may consider setting up joint ventures with ACP partners.

Feed for cattle and poultry DANISH OFFER - 86/8

A large company with overseas experience in Africa, the Middle East and Asia Minor, invites contacts with ACP entrepreneurs interested in setting up production of feed for poultry and ruminants, based on cellulose by-products. Locally available raw materials may be used, such as maize, soya, or cake derived from groundnuts, cotton seeds and coconuts. Mineral concentrates and vitamins are added.

The minimum plant capacity would be 10 000 tons a year for an investment of Ecu 224 430, FOB.

The Danish company will consider entering into joint ventures and can offer expertise and training.

Producing small flour mills and feedmills BELGIAN PROPOSAL - 86/9

A Belgian company experienced in exporting its products to Africa now wishes to set up the production or assembly of small flour mills and feedmills adapted to rural conditions.

The minimum market demand should be 5 feedmills a year with a capacity of 2.5 tons an hour and 50 flour mills per year with capacities between 350 kgr and 2 tons an hour. The investment required would be about Ecu 280 000, but this could be reduced if an ACP partner already possessed some of appropriate equipment.

Packaging glues and industrial detergents IRISH PROPOSAL - 86/10

A diversified company has developed its own highly successful manufacturing processes for adhesives for use in packaging. These include, for instance, very specialised adhesives for holding packages together and for making gummed paper.

This company also produces its own well-known brands of cleansers and detergents.

It wishes to set up production of emulsion and hot smelt type adhesives, plus industrial detergents, under joint venture arrangements with ACP entrepreneurs.

INFORMATION REQUIRED OF ACP ENTREPRENEURS WHEN REPLYING

- Show why it would be worth-while to manufacture the products in question in your country, e.g. give market data, indicate that raw materials or components are available locally, etc.
- Describe your present activities plus your industrial and/or commercial experience.
- State how much capital you yourself could contribute.
- State the maximum portion of the equity your country legally allows to an EEC partner.
- Can you obtain finance and if so from where?
- If you need a foreign loan or supplier's credit, can you obtain a local guarantee?
- Is your project a national priority?
- Outline the incentives your country offers to foreign investors.

It can supply and install equipment, provide training and assist with the search for finance.

Production (batch process) can be designed to suit market requirements. For emulsion adhesives (polymerization process) the minimum output would be 1 000 tons a year.

The minimum investment required would be:

- Hot melt adhesive plant
Ecu 162 000
- Industrial detergent plant
Ecu 406 000
- Adhesive blending plant
Ecu 406 000
- Polymerization plant
Ecu 162 000

The raw materials required for adhesives are: resins and waxes (for hot melt adhesives); vinyl acetate monomer, EVA polymers and copolymers.

The detergents require surfactants, phosphates and silicates. ■

CORRECTION

ANTI-RODENT PRODUCTS

Issue No 47 of "Industrial Opportunities" carried a Belgian proposal (86/3) for the manufacture under franchise of anti-rodent products using local raw materials, for the protection of crops, health and infrastructures.

The figure given in this proposal for the total investment required of the ACP franchisee was unfortunately incorrect. This figure should have read Ecu 222 000.

OPERATIONAL SUMMARY

No. 32 — March 1986

(position as at 24 February 1986)



EEC-financed development schemes

The following information is aimed at showing the state of progress of EEC development schemes prior to their implementation. It is set out as follows:

Geographical breakdown

The summary is divided into three groups of countries, corresponding to the main aspects of Community development policy:

- the ACP countries (Africa, the Caribbean and the Pacific), which signed the multilateral conventions of Lomé I (28 February 1975), Lomé II (31 October 1979) and Lomé III (8 December 1984), plus the OCT (overseas countries and territories) of certain member states of the EEC, which get the same type of aid as the ACP countries;
- the Mediterranean countries (Maghreb and Mashraq), which signed cooperation agreements with the EEC in 1976 and 1977;
- the non-associated developing countries of Asia and Latin America, beneficiaries since 1976 of annual aid programmes.

The information within each of these groups is given by recipient country (in alphabetical order).

Note

As the information provided is subject to modification in line with the development aims and priorities of the beneficiary country, or with the conditions laid down by the authorities empowered to take financial decisions, the EEC is in no way bound by this summary, which is for information only.

Information given

The following details will usually be given for each development scheme:

- the title of the project;
- the administrative body responsible for it;
- the estimated sum involved (prior to financing decision) or the amount actually provided (post financing decision);
- a brief description of projects envisaged (construction work, supplies of equipment, technical assistance, etc.);
- any methods of implementation (international invitations to tender, for example);
- the stage the project has reached (identification, appraisal, submission for financing, financing decision, ready for implementation).

Main abbreviations

Resp. Auth.: Responsible Authority
Int. tender: International invitation to tender
Acc. tender: Invitation to tender (accelerated procedure)
Restr. tender: Restricted invitation to tender
TA: Technical assistance
EDF: European Development Fund
mECU: Million European currency units

Correspondence about this operational summary can be sent directly to:

Mr. Franco Cupini
Directorate-General for Development
Commission of the European Communities
(ARCH.25/1-2)
200, rue de la Loi
B-1049 Brussels

who will pass on requests for information to the services in charge of projects. Please cover only one subject at a time.

Sectoral Index

<p style="text-align: center;">AGRICULTURE</p> <p>Irrigation and soil development, infrastructures, improvement</p> <p>Coffee, tea, tobacco, cereals, coconuts, ground-nut, maize, sugar, cotton, palm-nuts, rice, rubber, potatoes, citrus fruit</p> <p>Seed and crop protection, environment</p> <p>Agro-industry</p> <p>Forestry</p>	<p>Burundi, Cameroun, Chad, Côte d'Ivoire, Ghana, Guinea, Equatorial Guinea, Madagascar, Malawi, Mauritius, Niger, Rwanda, Senegal, Sierra Leone, Somalia, Sudan, Swaziland, Togo, Zambia, Zimbabwe, Egypt, Tunisia, Syria, Bangladesh, Indonesia, Nepal, India, Bhutan, Mozambique, Thailand, Pakistan, Dominican Republic, Costa Rica, Ecuador, Colombia</p> <p>Burundi, Djibouti, Equatorial Guinea, Ghana, Jamaica, Liberia, Madagascar, P.N.G., Solomon Islands, Sierra Leone, Somalia, Suriname, Zimbabwe, CILSS, Tunisia, Bangladesh, Thailand</p> <p>Botswana, Burundi, Comoros, Mali, Niger, Rwanda, Somalia, Tanzania, Niger Basin Authority, CILSS, Egypt, Tunisia, Jordan, Bangladesh, Nepal, China (People's Rep.), Yemen, Panama, Costa Rica, Honduras, El Salvador, Guatemala</p> <p>Burundi, Liberia, Rwanda, Solomon Islands, Togo, Thailand</p> <p>Chad, Guinea Bissau, Nigeria, New Caledonia, Niger Basin Authority</p>
<p style="text-align: center;">STOCK FARMING-FISHING-PISCICULTURE</p> <p>Improvement</p> <p>Veterinary projects</p> <p>Processing industry</p>	<p>Antigua and Barbuda, Botswana, Burkina Faso, Burundi, Comoros, Côte d'Ivoire, Djibouti, Ghana, Kiribati, Jamaica, Senegal, Sierra Leone, Somalia, Zaire, Congo, Gabon, Sao Tomé & Principe, Equatorial Guinea, Angola</p> <p>Kenya, Zambia, Suriname, African Countries, Eastern Africa, O.C.C.G.E., ICIPE, Malawi-Zambia-Zimbabwe, Chad, Egypt, Mozambique</p> <p>Madagascar, Tonga, Neth. Antilles, French Polynesia, Angola</p>
<p style="text-align: center;">RURAL HYDRAULICS</p> <p>Wells, bores, pumps, pipes, small dams</p>	<p>Botswana, Ethiopia, Guinea, Guinea Bissau, Mali, Mauritania, Lesotho, Liberia, Senegal, Sierra Leone, Swaziland, Burkina Faso, Zimbabwe, Montserrat, Egypt, Tunisia, Syria, Bhutan</p>
<p style="text-align: center;">TOWN WATER SUPPLY AND SEWERAGE</p> <p>Water supply, pipes, drinking water</p> <p>Sewerage, waste water, collectors, pumping stations, treatment</p>	<p>Madagascar, Tanzania, Zimbabwe</p> <p>Cape Verde</p>
<p style="text-align: center;">SOCIAL CONSTRUCTIONS</p> <p>Houses, schools, hospitals, buildings, laboratories</p>	<p>Belize, Benin, Burundi, Chad, Djibouti, Ethiopia, Fiji, Gambia, Guinea, Guinea Bissau, Kenya, Madagascar, Malawi, Mali, Mauritania, Niger, Sierra Leone, Somalia, Suriname, Swaziland, Tanzania, CEAO, Maritime Transport Conference, UDEAC, MRU, Eastern Africa, CARICOM, Egypt, Syria, Jordan, Colombia, Nepal</p>
<p style="text-align: center;">TRANSPORTS AND COMMUNICATIONS</p> <p>Roads, bridges, airports, railways, ports</p>	<p>Benin, Burkina Faso, Cameroon, Central African Rep., Gambia, Equatorial Guinea, Kenya, Liberia, Madagascar, Malawi, Niger, P.N.G., Sierra Leone, Solomon Islands, Somalia, Suriname, Tanzania, Tonga, Zaire, Guyana-Suriname, Niger-Nigeria, Djibouti-Ethiopia, Eastern African Countries, CARICOM, Pakistan, Central African Rep.-Congo, Pacific ACP Countries</p>
<p style="text-align: center;">TELECOMMUNICATIONS</p> <p>Radio, telephone, satellites, hertzian</p>	<p>UAPT, Sierra Leone</p>
<p style="text-align: center;">ENERGY</p> <p>Power stations, dams, electrification</p>	<p>Equatorial Guinea, Ethiopia, Madagascar, Mauritania, P.N.G., Somalia, Suriname, Zaire, Zambia, O.M.V.G., Egypt</p>
<p style="text-align: center;">NEW AND RENEWABLE ENERGY</p> <p>Solar, wind-wills, biomass, gas, geothermics</p>	<p>Guinea, Senegal, Suriname, Pacific OCT</p>
<p style="text-align: center;">MINING</p> <p>Soil survey, research, geophysical survey,</p> <p>Infrastructure, production, processing plants</p>	<p>Ghana, Rwanda, Zambia</p>
<p style="text-align: center;">MAPPING</p> <p>Soil-Air</p>	
<p style="text-align: center;">INDUSTRY</p> <p>Plants, productions</p>	<p>Burundi, Guinea, Malawi</p>
<p style="text-align: center;">TRADE, INDUSTRY, TOURISM, INVESTMENT PROMOTION - MANAGEMENT - MARKETING - S.M.E. TRAINING</p>	<p>Chad, Ghana, Guinea, Guinea Bissau, Kenya, Madagascar, Malawi, Niger, Rwanda, Senegal, Somalia, Sierra Leone, St. Lucia, Swaziland, Trinidad and Tobago, Tanzania, Togo, Zambia, Botswana-Swaziland, Neth. Antilles, Pacific ACP Countries, Egypt, Algeria, Banco Centro-Americano, Andean Pact., China (People's Rep.), Thailand, Costa Rica</p>



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Commission of the European Communities
200, rue de la Loi
1049 Brussels
Belgium**

ACP STATES

★ Denotes new projects

ANTIGUA AND BARBUDA

Livestock development — Phase I. Resp. Auth.: Ministry of Agriculture. Estimated cost 1.8 mECU. Works, supplies, T.A. T.A.: Darudec (DK). Project on appraisal. Date foreseen for financing decision 1st half 86. 5th EDF.
EDF AB 5003 A3a

BELIZE

Belize College of Arts, Science and Technology (BELCAST). Resp. Auth.: Ministry of Education. Estimated cost 7 mECU. Works and supplies. T.A. for tender dossier and plans: short-list already drawn up. Project on appraisal. 4th and 5th EDF.
EDF BEL 5001 A6b

BENIN

Djougou-Porga road. Resp. Auth.: Ministère des Travaux Publics. Intermittent road improvements over 180 km. Works: Int. tender launched in February 86. 4th EDF.
EDF BEN 4013 A2d

Upgrading of health service infrastructure in Porto Novo Hospital. Resp. Auth.: Ministère de la Santé Publique. Estimated cost 10 mECU: renovation and construction of the hospital building and equipment. Project on appraisal. Works: Int. tender with prequalification, launched (conditional) in August 84. 4th and 5th EDF.
EDF BEN 5010 A7a

Parakou polytechnical complex. Resp. Auth.: Ministère de l'Enseignement Moyen, Général, Technique et Professionnel. Total estimated cost 6.9 mECU. Construction of 8 000 m² of pedagogical and administrative buildings and hostels. Supplies and equipment. Technical and architectural study: Arch. VINO (Local). Project on appraisal. Date foreseen for financing decision 1st half 86. 4th EDF.
EDF BEN 4011 A6b

BOTSWANA

Village water supplies. Resp. Auth.: Ministry for Mineral Resources and Water

Affairs. Planning Study: DECON-FLOTO (D). Project on appraisal. 5th EDF.
EDF BT 5017 A2b

Services to livestock owners in communal areas (SLOCA), Phase II. Resp. Auth.: Ministry of Agriculture. 4.100 mECU. Works by acc. tender, supply of vehicles and equipment by int. tender. T.A. T.A.: B.M.B. (NL). Project in execution. 5th EDF.
EDF BT 5003 A3a

Wildlife tourism environment. T.A. in the area of Tourism and Wildlife. 2.1 mECU. Short-list done for restr. tender. Project in execution. 5th EDF.
EDF BT 5019 A8f

BURKINA FASO

Drinking water supply in the Yatenga region. Phase II. Resp. Auth.: Ministère de l'Eau. Estimated cost 5 mECU. Boreholes and wells. Supplies. All by int. tenders. Project in execution. 5th EDF.
EDF BK 5016 A2b

Improvement of halieutic production in Burkina Faso. Resp. Auth.: Ministère de l'Environnement et du Tourisme. Estimated total cost 3.850 mECU. EDF 2.850 mECU, local 1 mECU. Infrastructural works, buildings, supply of equipment and vehicles, T.A. and training. Works by direct labour, supplies by int. tender, T.A.: restr. tender. Project on appraisal. Date foreseen for financing decision February 86. 5th EDF.
EDF BK 5018 A3a

Ouagadougou-Kaya railways. Resp. Auth.: Ministère Promotion Economique. 5.5 mECU. Supply of rails, equipment and ballast. Project on appraisal. 5th EDF.
EDF BK 5019 A2d

BURUNDI

Institut Universitaire de Sciences de l'Education (IUSE). Resp. Auth.: Ministère de l'Education Nationale — 0.7 mECU. Construction and equipping of educational buildings (general teaching classes, laboratories, workshops). Int. tender dossier: TETRA

Consultants (Lux). Project on appraisal. 4th EDF.
EDF BU 4124 A6b

Faculty of agronomy. Resp. Auth.: Ministère de l'Education Nationale. Estimated cost 5 mECU. Int. tender dossier: BRUSA-PASQUE (I). Works: int. tender (conditional) launched in December 85. Project on appraisal. Date foreseen for financing decision April 86. 5th EDF.
EDF BU 5017 A6b

Social-economic development of the Kirundo Province. Resp. Auth.: Ministère de l'Agriculture et de l'Elevage. 15.5 mECU. Works: springwales catchment, wells boring, buildings, feeder roads. Supply of agricultural inputs, equipments, vehicles, T.A. and training. Works by acc. tender, supplies by int. tender or direct agreement. T.A. and training by restr. tender. Short-list done. Project in execution. 5th EDF.
EDF BU 5005 A3a

CAMEROON

Yaoundé — Ayos Road — Technical study. Resp. Auth.: Ministère des Transports. Estimated cost 0.860 mECU. Technical study for the execution and preparation of the tender dossier. Restr. tender. Short-list drawn up. Project in execution. 5th EDF.
EDF CM 5019 A2d

Dibombari oil palm-tree plantations. Phase II: feeder roads. Resp. Auth.: SO-CAPALM. EDF 1.110 mECU. Feeder roads rehabilitation and construction. Works by direct labour. Project on appraisal. Date foreseen for financing decision April 86. 5th EDF.
EDF CM 5005 A3a

★ **Community rural development in the BAFUT region. Phase II.** Resp. Auth.: Gouverneur de la Province du Nord-Ouest. 1.5 mECU. Rural inputs, drought farming, hydro-agricultural rehabilitation. Works by acc. tender. Supplies by direct agreement. T.A.: Short-list not yet drawn up. Project on appraisal. 5th EDF.
EDF CM 5020 A3a

CENTRAL AFRICAN REPUBLIC

Upgrading of the R.N.5. 0.900 mECU. Works by direct labour. Supply of road equipment and vehicles by int. tender. T.A.: Gitec (D). Project in execution. 3rd EDF. EDF CA 3001 A2d

CHAD

Priority actions programme in the educational field. Resp. Auth.: Ministère du Plan et de la Reconstruction. Estimated cost 5.2 mECU. Works, supplies, scholarships and T.A. T.A.: short-list done for restr. tender. Project in execution. 5th EDF. EDF CD 5003 A6a

Agricultural programme in the Sudan zone. Estimated cost 5.5 mECU. Various actions for: organizing the peasantry, stocking and marketing, utilization of improved seeds and production techniques. Project on appraisal. Date foreseen for financing decision 1st half 86. 5th EDF. EDF CD 5010 A3b

Rehabilitation of hospital and health sector. Resp. Auth.: Ministère du Travaux Publics, de la Santé et Médecins sans Frontières (MSF-B). Estimated total cost 5.590 mECU. EDF 4.560 mECU, MSF(B) 0.505 mECU, Aviation sans Frontière (F) 0.100 mECU, local 0.425 mECU. Works by direct agreement or direct labour. Supply of medical equipment, supplies, medicines by int. tender. Project in execution. 5th EDF. EDF CD 5011 A7a

Livestock priority actions programme. Resp. Auth.: Ministère de l'Élevage. Estimated cost 5.3 mECU. T.A.: M. Motte (B). Project in execution. 5th EDF. EDF CD 5012 A3a

★ **Renovation and equipment of "Lycée Technique Commercial" in Technique de Bangui. N'Djamena.** Resp. Auth.: Ministère du Plan et de la Reconstruction. 2 mECU. Works and supply of equipment. Project on appraisal. 5th EDF. EDF CD 5015 A6d

COMOROS

Small stock-farming promotion in Anjouan. Estimated cost 0.200 mECU. Supply of equipment. Project on appraisal. Date foreseen for financing decision March 86. 5th EDF. EDF COM 5010 A3a

COTE D'IVOIRE

Prawn farming pilot farm. Resp. Auth.: Ministère du Dév. Rural. Estimated total cost 1.875 mECU. EDF 0.850 mECU. Works, supplies, T.A. and training. T.A.: SEPIA Int. (F). Project in execution. 5th EDF. EDF IVC 5019 A3d

Rural development of the central region. Resp. Auth.: Ministère du Dév. Rural. Development of irrigated rice-growing. Works, supplies and T.A. Project on appraisal. 5th EDF. EDF IVC 5021 A3a

DJIBOUTI

Revitalization and improved use of the doum palm plantations. Resp. Auth.: Min-

istère de l'Agriculture et du Dév. Rural. Estimated cost 0.750 mECU. 1st stage: study for preserving and making better use. After the study a pilot programme to improve project. Only for the study 0.200 mECU. Special hunger programme. Project in execution. 958-DI 5006 A3a

Administrative training centre. Resp. Auth.: Ministère de la Fonction Publique. Construction of two buildings. Estimated cost 0.560 mECU. Cofinanced by EDF and France. EDF 0.270 mECU. Works and supplies. Works by int. tender. Project in execution. 5th EDF. EDF DI 5004 A6e

Ranch construction. Resp. Auth.: Ministère de l'Agriculture. Studies and Works. Works by int. tender. 1.030 mECU. Int. tender dossier prepared by Dubois (ACP). Project in execution. 5th EDF. EDF DI 5005 A3a

EQUATORIAL GUINEA

Rural interventions. Project stage: identification. 5th EDF. EDF EG A3a

Rural development in the Bata district. Resp. Auth.: Ministère de l'Agriculture, de l'Élevage et du Dév. Rural, Ministère de la Santé. 1.350 mECU. Study by BDPA (F). Supervision of works: short-list done. T.A.: Short-list already drawn up for restr. tender. 5th EDF. Project in execution. EDF EG 5004 A3a

Malabo's electrification (Phase II). 2.7 mECU. Purchase of generator sets, re-pairing of the power-station and town mains extension. 2 int. tender launched in June 85. Project on appraisal. Date foreseen for financing decision March 86. 5th EDF. EDF EG 5003 A2ai

Cocoa-tree plantations rehabilitation on Bioko island. Estimated total cost 19 mECU. EDF 0.900 mECU. World Bank 11 mECU. OPEC 1.2 mECU, BADEA 3.3 mECU, local 2.6 mECU. EDF part: supply of fertilizers. Project on appraisal. Date foreseen for financing decision March 86. 5th EDF. EDF EG 5008 A3a

Assistance to the road maintenance service in Rio Muni. 2nd phase. Resp. Auth.: Ministère des Travaux Publics. 1.1 mECU. T.A., training and purchase of road equipments. Project in execution. 5th EDF. EDF EG 5009 A2d

ETHIOPIA

Construction and equipment of one agricultural research station in Bale-Arsi. Resp. Auth.: Institute of Agricultural Research (I.A.R.). Special hunger programme. 1.5 mECU. Project in execution. 958-ET 5015 A3c

Rural Water Supply. Resp. Auth.: Ethiopian Water Works Construction Authority. 1.9 mECU. Supply of equipments. T.A.: J. Taylor and Son (UK) and GITEC (D). Project in execution. 5th EDF. EDF ET 5016 A2b

GAMBIA

Brikama College, phase II. Resp. Auth.: Ministry of Works and Communications. 1.925 mECU. Construction and equipment of academic and residential buildings. Works by mutual agreement. Equipment for phase II: int. tender, 1st quarter 1986. 4th EDF. EDF GM 4005 A6b

Upper River Division feeder roads. Resp. Auth.: Public Works Dept. Estimated cost 2.750 mECU. Construction and reinforcement of 83 km in the Sandu and Wuli districts. Works by direct labour. Supplies by int. tender. Project in execution. 5th EDF. EDF GM 5014 A2d

GHANA

Central and Accra Regions Rural Integrated Programme (CARRIP). Resp. Auth.: Ministry of Finance and Economic Planning. Prefeasibility study for potential projects within the two regions, with the aim of improving the food situation in Accra and other coastal towns. Halcrow-U.L.G. (UK). Study: rehabilitation irrigation project: HED-ESELSKABET (DK). 5th EDF. EDF GH 5025 A3e

Aveyme livestock development. Resp. Auth.: Ministry of Agriculture. 3.2 mECU. Works, supply of vehicles and equipment, T.A.: ORYX (I) 5th EDF. EDF GH 5015 A3a

Ghana Cocoa Marketing Board. Vehicle Workshop. Resp. Auth.: Cocoa Marketing Board. (CMB) 2.936 mECU. Stabex 81, Completion and construction of workshops. Supply of equipment and T.A. Works by acc. tender. Supplies: int. tender launched in February 86. T.A.: direct agreement. Project in execution. 5th EDF. EDF GH STA 5019 A3e

Second Line of Credit to the National Investment Bank (NIB). Resp. Auth.: Development Service Institute of NIB. 2.9 mECU. T.A. and supply of equipment. T.A.: P.E. Int. (UK). Project in execution. 5th EDF. EDF GH 5013 B3a

Line of Credit to the Agricultural Development Bank. Resp. Auth.: Agric. Dev. Bank (ADB) 6mECU. Purchase of marine diesel engines, spare parts, fishing nets, and T.A. Project in execution. 5th EDF. EDF GH 5009 A5a

Agricultural Rehabilitation through the Rural Banks Scheme. Phase II. Supply of equipment to small scale farmers and fishermen. T.A. 8.760 mECU. T.A.: short-list done for restr. tender. Project in execution. 5th EDF. EDF GH 5004 A5a

Supplementary finance for Twifo Oil Palm Development. Resp. Auth.: Twifo Oil Palm Plantation Ltd. (TOPP). 5.043 mECU. Infrastructure, housing construction by direct labour. Supply of crop inputs, vehicles, tractors and T.A. Project in execution. 5th EDF. EDF GH 5003 A3a

Twifo smallholder Oil Palm Project. Resp. Auth.: TOPP. 3,715 m ECU. Works,

supplies and T.A. 5th EDF.
EDF GH 5021— STA

A3a

Takoradi harbour rehabilitation. Resp. Auth.: Ghana Ports Authority. Estimated total cost 16.7 mECU. EDF 9.7 mECU, World Bank 5 mECU, local 2 mECU. Works and supply of equipment. Project on appraisal. 5th EDF.
EDF GH 5028

A2d

GUINEA

Land development in Kankan and Labé regions. Phase II. Resp. Auth.: Ministère de l'Agriculture et des F.A.P.A. Valuation: MacDonald and Partners (UK). Project on appraisal. 5th EDF.
EDF GUI 5030

A3a

New energy research and test. Resp. Auth.: Ministère de l'Energie et du Konkouré. Study on hand by A.I.D.R. (B). 5th EDF.
EDF GUI 5006

A2a

T.A. to the Dir. Gen. de l'Habitat et de l'Urbanisme. Development of provincial centres. Resp. Auth.: Ministère de l'Urbanisme et de l'Habitat. Estimated cost ±6 mECU. Aerial survey, supply of equipment, T.A. and training. Int. tender launched in December 85 and in February 86. Project in execution. 5th EDF.
EDF GUI 5017

A8b

Assistance to the «Ecole Nationale des Arts et Métiers-ENAM-Conakry». 2.265 mECU. Building renovation and supply of equipment. T.A. 5th EDF.
EDF GUI 5028

A6d

★ **Go into production for the plastic plant "SOGUIPLAST".** Resp. Auth.: Guinea Government. Estimated cost ±6 mECU. Int. tender after prequalification foreseen in March 86 to set up with Guinean authorities a joint-company for plant management and for a T.A. (12 months). Supply of row materials (plastics) by int. tender foreseen in April 86. All int. tenders will be conditionals. Project on appraisal. Date foreseen for financing decision June 86. 5th EDF.
EDF GUI

GUINEA BISSAU

Health infrastructures. Resp. Auth.: Commissariat d'Etat au Travaux Publics. Estimated cost 1.9 mECU. Construction and equipment of 2 district hospitals, 4 health centres and staff housing. Supply of equipment: int. tender 2nd half 85. T.A.: Short-list done. Project in execution. 5th EDF.
EDF GUB 5006

A7a

North-East forestry development. Resp. Auth.: Commissariat général au développement rural. Study under way by Atlanta (D). 5th EDF.
EDF GUB 5004

A3c

Rural hydraulics. Resp. Auth.: Ministère des ressources naturelles. Estimated cost 1.4 mECU. Construction of big diameter wells (1.5 m). 85 wells in the GABU region. Works by acc. tender. Project on appraisal. Date foreseen for financing decision April 86. 5th EDF.
EDF GUB 5005

A2b

T.A. for the reform of trade. Estimated cost 1.6 mECU. T.A. to the Ministry and

state companies: Kelvingate (UK). T.A.: short-list done for restr. tender. 5th EDF.
EDF GUB 5009

A5c

IVORY COAST

(See Côte d'Ivoire)

JAMAICA

Citrus fruit production improvement. Resp. Auth.: Ministère de l'Agriculture. Estimated cost 3.5 mECU. Equipment, training and T.A. Credit line. T.A.: VAKAKIS (GR). Project in execution. 5th EDF.
EDF JM 5004

A3a

Coffee development. Resp. Auth.: Ministry of Agriculture. Estimated total cost 3.7 mECU. EDF 3.5 mECU. Local 0.2 mECU. Supply of equipment, T.A. and credit line. T.A.: Short-list already drawn up for restr. tender. Project in execution. 5th EDF.
EDF JM 5005

A3a

Bee-keeping Development Project. Resp. Auth.: Ministry of Agriculture. 1.270 mECU. Supply of vehicles, T.A. and line of credit. T.A.: Short-list done for restr. tender. Project in execution. 4th and 5th EDF.
EDF JM 5013

A3a

KENYA

Eldoret Polytechnic. 6.5 mECU. Construction, supply of equipment (pedagogical) and T.A. Works by acc. tender. Tender already launched. Supervision of works: Hughes and Polkinghorne (UK). Project in execution. 5th EDF.
EDF KE 5010

A6b

Strengthening of existing facilities for research in the field of public health. Construction of a laboratory by int. tender. Work supervision: Dalgliesh Marshal (UK). 1 mECU. Project in execution. 5th EDF.
EDF KE 5019

A7a

Line of credit to the "Small Scale Enterprises Finance Company" (SEFCO). Resp. Auth.: Development Finance Company of Kenya. 0.500 mECU. Project on appraisal. 5th EDF.
EDF KE 5020

A4b

Tambach-Biretwo road. Asphalted road construction. 10.5 km. 4.5 mECU. Project on appraisal. Int. tender (conditional) launched in November 85. Date foreseen for financing decision February 86. 5th EDF.
EDF KE 5021

A2d

Reinforcement of the medical infrastructure in the district of Machakos. 1.100 mECU. Works and supplies. Project on appraisal. Date foreseen for financing decision March 86. 5th EDF.
EDF KE 5022

A7a

KIRIBATI

Fishing-boats. 2.8 mECU. Purchase of 2 boats, 26 m. each. Project in execution. 5th EDF.
EDF KI 5002

A3d

LESOTHO

★ **"Highlands Water Scheme" Project.** Resp. Auth.: Ministry of Water, Energy and

Mining. Estimated EDF contribution 9.8 mECU. Final planning study on hydraulics and T.A. to the Lesotho Highlands Development Authority. Project on appraisal. 6th EDF.
EDF LSO 6001

A2b

LIBERIA

Buto oil palm. Phase II. Resp. Auth.: Ministry of Agriculture. 4.2 mECU. Continuation of the existing project in connection with the construction of an oil mill. T.A. and supply of equipment. T.A.: SODECI (F). Project in execution. 5th EDF.
EDF LBR 5004

A3a

Development of Harper Port. Resp. Auth.: National Port Authority. Estimated cost 12.4 mECU. Rehabilitation and fendering of the existing jetty, dredging in the harbour basin, services. Int. tender with prequalification. Prequalification done. Supervision of works: short-list done for restr. tender. Project in execution. 5th EDF.
EDF LBR 5017

A2d

Rural Water Supply. Resp. Auth.: Ministry of Rural Dev. Estimated cost 2.5 mECU. Project on appraisal. 5th EDF.
EDF LBR 5018

A2b

★ **Monrovia Port.** Resp. Auth.: National Port Authority. Estimated cost 1.8 mECU. Management assistance. Project on appraisal. 5th EDF.
EDF LBR 5019

A2d

MADAGASCAR

Rehabilitation of «Centre Semencier Riz» in Marofarihy. Resp. Auth.: Ministère de la Production Agricole et de la Réforme Agraire. EDF 1.630 mECU. Works, supply of equipment and training. T.A.: Short-list already drawn up for restr. tender. Int. tender for supplies launched in June 85. Project in execution. 5th EDF.
EDF MAG 5015

A3a

Assistance to the Malagasy handicrafts industry. Resp. Auth.: Ministère de l'Industrie. Estimated cost 1 mECU. Supply of raw materials for handicrafts by int. tender. T.A.: APRODI (F). Project in execution. 5th EDF.
EDF MAG 5017

A4d

Ambositra water supply. EDF 1.8 mECU. Renovation of the whole water system for private and industrial needs. Int. tender for supplies launched in February 86. Project in execution. 5th EDF.
EDF MAG 5019

A2b

Slaughter-house rehabilitation in Antananarivo, Mahajanga and Morondava. Resp. Auth.: Ministère de la Production Animale et des Eaux et Forêts, Direction de l'Elevage. Total estimated cost 9.070 mECU. EDF 7.570 mECU, France 0.200 mECU, local 1.3 mECU. Works by acc. tender, supply of equipment by int. tender launched in December 85. T.A. by direct agreement. Project in execution. 5th EDF.
EDF MAG 5024

A3a

Rehabilitation of rice-growing areas in the Toliara Province. Resp. Auth.: Ministère de la Production Agricole et de la Réforme Agraire. 7.2 mECU. Works: irrigation and drainage system and buildings. Supply of equipments, vehicles and T.A. Works

and supplies by int. tenders. T.A. by restr. tender. Short-list done. 5th EDF.
EDF MAG 5023 A3A

MALAWI

Salima Lakeshore Agricultural Development Division (SLADD) Phase IV. Resp. Auth.: Ministry of Agriculture. Estimated cost: 19.1 mECU. EDF 9.5 mECU. Local 9.6 mECU. Works, Supplies and T.A. Project in execution. T.A.: restr. tender, short-list drawn up. 5th EDF.
EDF MAI 5001 A3a

Central and northern region fish farming development, training and research. Resp. Auth.: Ministry of Agriculture. Estimated cost: 3 mECU. Works, supplies, T.A. Project on appraisal. Date foreseen for financing decision April 86. 5th EDF.
EDF MAI 5019 A3a

Strategic fuel reserve. Resp. Auth.: Office of the President and Cabinet. Contingency Planning Unit. 4.2 mECU. Construction of tanks farm for gasoil, petrol, ethanol. Associated infrastructure and equipment. T.A. Project on appraisal. 5th EDF.
EDF MAI 5020 A2a

Small Enterprise Development Organization of Malawi (SEDOM) — Phase II. Resp. Auth.: Sedom secretariat. EDF 4.8 mECU. Works by direct labour. Supply of vehicles and equipment by int. tender in '86. T.A.: Short-list done for restr. tender. Project in execution. 5th EDF.
EDF MAI 5021 A4e

Mwansambo Rural Growth Centre. Resp. Auth.: OPC, Rural Development Division. 0.900 mECU. Works, supplies and T.A. Project on appraisal. Date foreseen for financing decision April 86. 5th EDF.
EDF MAI 5028 A3a

Blantyre-Lirangwe M1 Road. Resp. Auth.: Ministry of Works. 23.6 mECU. Road construction and rehabilitation. Works by int. tender (conditional) launched in February 86. Project on appraisal. 6th EDF.
EDF MAI 6001 A2d

MALI

Strengthening of sanitary infrastructure in the Niore region. Resp. Auth.: Ministère de la Santé et des Affaires Sociales et Ministère des Transports et T.P. 2.570 mECU. Buildings, equipment, training. Architectural and technical studies: GOUSIER (F). T.A.: Short-list already drawn up. 4th EDF.
EDF MLI 4016 A7a

Rural hydraulics programme. 5.8 mECU. 300 wells and pumps. T.A.: Géohydraulique (F). Project in execution. 5th EDF.
EDF MLI 5017 A2b

MAURITANIA

Extension of Kaédi regional hospital. Resp. Auth.: Ministère de l'Équipement. 1.925 mECU. Construction, equipment and TA for Kaédi hospital (100 beds). Works under way. Medical-technical equipment int. tender, foreseen in the 1st quarter 86. 3rd, 4th and 5th EDF.
EDF MAU 5018 A7a

Small dams construction in the Hodhs region. Resp. Auth.: Ministère du Développement rural. Estimated cost 2 mECU. Study under way: Binnie and Partners (UK). Project on appraisal. 5th EDF.
EDF MAU 5001 A3a

Aïoun El Atrouss hospital. Resp. Auth.: Ministère de l'Équipement. 1.050 mECU. Renovation and supply of equipment for 3 buildings. Works by acc. tender. Supplies by int. tender. Project on appraisal. 5th EDF.
EDF MAU 5012 A7a

"Centre de Formation Professionnelle Maritime de Nouadhibou (C.F.P.M.). Resp. Auth.: Ministère de l'Équipement. 2.5 mECU. Construction, supply of equipment and purchase of a wooden-trawler, T.A. Project in execution. 5th EDF.
EDF MAU 5014 A6d

★ **T.A. to the Nouakchott Hospital.** Resp. Auth.: Ministère de l'Équipement. 0.540 mECU. Project on appraisal. 5th EDF.
EDF MAU 5011 A7a

MAURITIUS

Development of Ile Rodrigues. Resp. Auth.: Ministry of Agriculture. 3 mECU. Development centred on agricultural production. Economical and technical study under way. T.A.: Luxconsult (Lux.). 5th EDF.
EDF MAS 5001 A3a

NIGER

Air Valley development. Resp. Auth.: Ministère du Développement Rural. Estimated cost 2.052 mECU. Hydro-agricultural works. Construction and equipping of wells. Equipping and operation of nurseries. T.A. and training. Works and equipment: int. tender. T.A.: VAKAKIS (GR). Project in execution. 5th EDF.
EDF NIR 5002 A3a

Training for Cooperatives. Resp. Auth.: Ministère du Développement Rural. Estimated cost 2.8 mECU. T.A. and supply of equipment. T.A. by restr. tender. Supplies by int. tender or direct agreement. 5th EDF.
EDF NIR 5004 A3b

Rural Development in the Zinder Department. Resp. Auth.: Ministère du Développement Rural. Estimated cost 2.5 mECU. Project on appraisal. 5th EDF.
EDF NIR 5019 A3a

Area extension in Tillakaina. Resp. Auth.: Ministère du Développement Rural. 0.340 mECU. Project in execution. 5th EDF.
EDF NIR 5020 A3a

Traditional wells repairing in the Qualiam Region. Resp. Auth.: Ministère de l'Hydraulique. 3.1 mECU. 100 wells. Works, supervision and training. Project on appraisal. Date foreseen for financing decision March 86. 5th EDF
EDF NIR 5010 A2b

NIGERIA

Kaduna afforestation project. Resp. Auth.: Federal Department of Forestry. 9.4 mECU. Works, supplies and T.A. Project in execution. T.A.: restr. tender, short-list done. 5th EDF.
EDF UNI 5001 A3c

PAPUA NEW GUINEA

Magi highway. Resp. Auth.: Department of Transport. 3.5 mECU. Upgrading and sealing of a road section. Works: int. tender foreseen 1st half '86. 5th EDF.
EDF PNG 5006 A2d

Diesel Power Replacement Programme. Resp. Auth.: Electricity Commission (ELCOM). Estimated cost 4.850 mECU. 4 small hydroelectric power plants with transmission line extensions from existing grids. Project on appraisal. Date foreseen for financing decision March or April 86 for the 1st power plant. 1st int. tender (conditional) launched in October 85. 5th EDF.
EDF PNG 5011a A2a

Kimbe-Talasea Road. Resp. Auth.: Departments of Works and Transport. Estimated total cost 9.5 mECU. EDF 7 mECU, local 2.5 mECU. Upgrading of ±35 km of the road. Works and supervision. Project on appraisal. 5th EDF.
EDF PNG 5013 A2d

RWANDA

Development of the small-scale tin industry. Resp. Auth.: Ministère de l'Industrie, des Mines et de l'Artisanat. 2.840 mECU. Sysmin. Works, supplies, training and T.A. T.A.: M. Molzem (Lux). Project in execution. 5th EDF.
EDF RW 5016 A4a

★ **Support to the: "Centrale Comptable et Organisation".** Resp. Auth.: Présidence de la République. 3.1 mECU. T.A. and training. Project on appraisal. Date foreseen for financing decision March 86. 5th EDF.
EDF RW 5014 A1b

SENEGAL

New energy research and test in rural region. Resp. Auth.: Secrétariat d'Etat à la Recherche Scientifique. 1.5 mECU. Creation of pilot unit for solar energy, biomass and wind energy. Studies, T.A. and equipment. Studies: AGIP-AFOR (I). Equipment: int. tender in 86. Project on appraisal. 5th EDF.
EDF SE 5005 A2a

Trade Promotion programme. Resp. Auth.: Centre Sénégalais du Commerce Extérieur. 1.083 mECU. Actions for production, marketing and T.A. Contract: direct agreement or restr. tender. T.A.: M. Farine (F). 5th EDF.
EDF SE 5016 A5d

Consolidation of the livestock development programme. Resp. Auth.: SODESP. Estimated cost 1.6 mECU. Study under way by Bessel Ass. (UK). Project on appraisal. 5th EDF.
EDF SE A3a

Artisanal fishery development in the Casamance Region. Resp. Auth.: Secrétariat d'Etat à la Pêche Maritime. Total cost 2.443 mECU. EDF 1.6 mECU, C.C.C.E. (F) 0.843 mECU. Works, supplies and training. Project on appraisal. Date foreseen for financing decision March 86. 5th EDF.
EDF SE 5024 A3a

Study on irrigated rural units in the Podor region. (Senegal River Valley). Resp. Auth.: S.A.E.D. Estimated cost 1 mECU.

Soil survey, mapping, preparation of the tender dossier, economic study. Study. M. Dhonte (F). Project in execution. 5th EDF. EDF SE 5030 A3a

SIERRA LEONE

Rural hydraulics. Resp. Auth.: Ministry of Energy and Power. 1.55 mECU. Construction of water points for villages with 2000 inhabitants. Project in execution. 5th EDF. EDF SL 5001 A2b

Kambia Fishery Development. Resp. Auth.: Ministry of Agriculture and Forestry. 0.900 mECU. Construction of 2 buildings and a boatyard, supply of boats, motors, vehicles and T.A. T.A.: MacAlister, Elliot and Partners (UK). 5th EDF. EDF SL 5019 A3d

Rehabilitation of the Telecommunications Network. Resp. Auth.: Post and Telecommunications Dept. Estimated cost ± 9.5 mECU. Study to prepare technical specifications and int. tender dossier: short-list done for restr. tender. Project on appraisal. 5th EDF. EDF SL 5024 A2c

Port Loko rural development programme. 6 mECU. Infrastructures, T.A., training and supplies. Date financing decision January 86. 5th EDF. EDF SL 5006 A3a

Support to the Geological Surveys Department. 1.30 mECU. T.A. and training, supply of equipment. Project in execution. 5th EDF. EDF SL 5016 A4a

Creation of regional centres for small enterprises. Estimated cost 1.25 mECU. Project stage: identification. 5th EDF. EDF SL 5017 A4d

Rural health development programme. Estimated cost 1.5 mECU. Buildings, equipment and training. Project state: identification. 5th EDF. EDF SL 5025 A7a

Tourism development project. Estimated cost 0.850 mECU. T.A. for Ministry of Tourism and supply of equipment. Project stage: identification. 5th EDF. EDF SL 5026 A5c

SOLOMON ISLANDS

Coconut industry development project. Resp. Auth.: Ministry of Land and Natural Resources. Study under way by Agrar and Hydrotechnik (D). Project stage: identification. 5th EDF. EDF SOL 5009 A3a

Noro Port and Township. Resp. Auth.: Ministry of Communications and Public Authority. Estimated total cost 27.5 mECU. EDF 7.5 mECU, Japan 14 mECU, local 6 mECU. Construction of a new deep-water wharf and road network, trunk water supply, water reticulation and sewage treatment. Project on appraisal. Int. tender (conditional) launched in October 85. Date foreseen for financing decision February 86. 5th EDF. EDF SOL 5010 A2d

SOMALIA

Bardheera Dam. Resp. Auth.: Bardheera Dam Authority (BDA). 600 mECU. (Estimated) Dam Project 500 mECU. Powerline to Mogadishu 100 mECU. Funding: EDF, Italy, Germany, France, Saudi Arabia, Abu Dhabi, Kuwait Funds, FADES, Isl. Dev. Bank. Local. Power and river regulation for agricultural development. Construction of a concrete gravity dam with hydro-power station, associated infrastructure and electrical transmission lines. The dam will provide water, flood protection and power for up to 223 000 ha of irrigated agriculture in the Juba Valley, and energy to Mogadishu. Civil works: first int. tender launched in 1984. Transmission lines int. tender in 1986. Equipment: powerhouse main equipment and auxiliary equipment, int. tenders in 1987. Gates, valves, intake equipment, int tender in 1987. Int. tender with prequalification launched in February 86 for hydraulic tests. Project in execution. 5th EDF. EDF SO 5003 A2a

"Aula Magna" Mogadishu National University. Resp. Auth.: Ministry of Public Works. ± 2.5 mECU. Project on appraisal. 4th EDF. EDF SO 4015 A6b

Upgrading of the road Afgoi-Shalambot-Goluen. Resp. Auth.: Ministry of Public Works. Works by int. tender in 86. Supervision of works. Studies: AIC. PROGETTI (I). Project on appraisal. 5th EDF. EDF SO 5017 A2d

Grapefruit Development Project. Resp. Auth.: Ministry of Agriculture. 3.8 mECU. Works supply of vehicles, equipment and rural inputs. T.A.: Agriconsulting (I) and Istituto Sperimentale per l'Agricoltura (I). Project in execution. 5th EDF. EDF SO 5009 A3a

Food Early Warning System. Resp. Auth.: Ministry of Agriculture. Estimated total cost 4 mECU. EDF ± 3.1 mECU. Supply of meteorological and office equipment and T.A.: Transtec (B). Project in execution. 5th EDF. EDF SO 5015 A8f

North-West agricultural development project. Estimated total cost 36 mECU. EDF: 7.6 mECU, World Bank 14.9 mECU, IFAD 9.9 mECU, local 3.6 mECU. Infrastructural work and supply of equipment and T.A. T.A.: Short-list done for restr. tender. Project in execution. 5th EDF. EDF SO 5016 A3a

Rinderpest programme assistance. Resp. Auth.: Ministry of Livestock 0.207 mECU. Stabex 81. Supply of vehicles and equipment by int. tender. Project in execution. 5th EDF. EDF SO STA 5018 A3a

T.A. to the Ministry of Finance, the Central Bank and the Commercial and Savings Bank. Resp. Auth.: Ministry of Finance. 1.875 mECU. Project on appraisal. Date foreseen for financing decision March 86. 5th EDF. EDF SO 5019 A1b

SUDAN

Nuba Mountains Rural Development Project. Interim phase. Resp. Auth.: Ministry of Agriculture. 2.200 mECU. Supply of equipment and vehicles by int. tender, T.A. and training. T.A.: Halcrow-ULG (UK). Project in execution. 5th EDF. EDF SU 5019 A3a

SURINAME

Rice project at Coronie. Resp. Auth.: Ministerie van Landbouw, Veeteelt, Visserij en Bosbouw. 7.650 mECU. Rice production developments. T.A.: EUROCONSULT (NL). Project in execution. 3rd and 5th EDF. EDF SUR 5002 A3a

Biomass energy project at Wageningen. Resp. Auth.: Government. Installation of an energy generator on the basis of rice husks. Project stage: identification. 5th EDF. EDF SUR 5009 A2a

Artificial Insemination Project. Resp. Auth.: Ministry of Agriculture, Fisheries. 0.72 mECU. Building of a new station and provision of equipment and material. Project on appraisal. Date foreseen for financing decision February 86. 5th EDF. EDF SUR 5010 A3a

Rehabilitation of the road Burnside-Wageningen. Resp. Auth.: Ministry of Finance and Planning. Estimated total cost 5.5 mECU. Study to be done: technical methods for the implementation of the project: Delft Universiteit (NL). Project on appraisal. 4th and 5th EDF. EDF SUR 5011 A2d

SWAZILAND

Rural hydraulics. Resp. Auth.: Rural Water Supply Board. Estimated cost 2.456 m ECU. Study construction, works supervision. 12 villages. Supply of equipment and material. Study and works supervision: Carl Bro (DK). Project in execution. 5th EDF. EDF SW 5001 A2b

Smallholders Support Project, Credit and Marketing. Resp. Auth.: Ministry of Agriculture. 3.550 mECU. Works, line of credit, T.A. and training. T.A.: Cooper Lybrand (ACP branch). Project in execution. 5th EDF. EDF SW 5005 A4e

Matsapha Vocational Training College. Resp. Auth.: Ministry of Education. EDF 3.9 mECU. Construction and equipping of the college. Project in execution. 5th EDF. EDF SW 5006 A6a

TANZANIA

Mtwara water supply. Resp. Auth.: Ministry of Water, Energy and Minerals. 5 mECU. Works: drilling of new wells, and constructions. Supply of equipment and T.A. Drilling activities and power supply connections by direct labour. Other works: int. tender in '86. Supplies: int. tender in '86. Supervision of works: G.W.E. (D). Project in execution. 5th EDF. EDF TA 5003 A2b

Banana improvement and pest control (Phase 1). Resp. Auth.: Ministry of Agriculture. Estimated total cost 3.740 mECU. EDF 3 mECU, local 0.740 mECU. Supply of pesticides, vehicles, equipment by int. tender. T.A. Short-list done for restr. tender. Project in execution. 5th EDF.
EDF TA 5008 A3a

Ports of Zanzibar and Pemba. Estimated cost 10.17 mECU, T.A. for management, organization, pricing and financial systems, training. Restoration of infrastructure. T.A.: NEDECO (NL). Project stage: identification. 5th EDF.
EDF TA 5024 A2d

Rehabilitation of Zanzibar Hospitals (Phase I). Resp. Auth.: Ministry of Health, Zanzibar. EDF 1.1 mECU. Works and supply of equipment. Project in execution. 5th EDF.
EDF TA 5017 A7a

Cooperative Rural Development Bank (CRDB) Project. 3.15 mECU. Provision of equipment, training and T.A. Project on appraisal. 5th EDF.
EDF TA 5026 A3a

TOGO

Enquiry into consumer expenditures. Resp. Auth.: Ministère du Plan, de l'Industrie et de la Réforme Administrative. Estimated total cost 1.3 mECU. EDF 1 mECU, Local 0.3 mECU, T.A. to produce, collect and treat statistical data, training and supply of equipment. T.A.: short-list done. Project in execution. 5th EDF.
EDF TO 5011 A1e

TONGA

Supply of a dredger. Resp. Auth.: Ministry of Works. Estimated cost 0.500 mECU. Technical study: EUROCONSULT (NL). Int. tender foreseen 1st half '86. Project on appraisal. 5th EDF.
EDF TG 5002 A2d

Faua Fisheries Harbour. Resp. Auth.: Ministry of Works. Estimated cost 3.3 mECU. Construction of a new fisheries harbour, repair yards, fish market and wholesale store with ice-making equipment. Int. tender for the supply of sheet steel piles launched in November 83 (conditional). Supply of cooling and ice equipment int. tender in 86. Works by direct labour. T.A.: M. Imrie (UK). Project in execution. 5th EDF.
EDF TG 5001 A3d

TRINIDAD AND TOBAGO

Training programme, health sector. Resp. Auth.: Ministry of Health and Environment. 1.2 mECU. Training awards, laboratory equipment (sound-meters, chemical chromatographs, spectrometers) by int. tender. Short-term T.A. to coordinate and establish new laboratory. Project in execution. 5th EDF.
EDF TR 5003 A8c

★ **Goat development project.** Resp. Auth.: Ministry of Agriculture. 0.950 mECU. Works and supply of equipment. Project on appraisal. 5th EDF.
EDF TR 5005 A3a

ZAIRE

Kalemie port rehabilitation. Resp. Auth.: Département des Transports et Communications. 6.5 mECU. 2 Int. tenders (conditional) launched in March 84. Works and supplies. Project on appraisal. Date foreseen for financing decision 1st half 86. Regional project. 5th EDF.
EDF REG 5215 A2d

Banana deep water port. Resp. Auth.: Département des Transports et Communications. Economic and financial evaluation: SEMA (F). 5th EDF.
EDF ZR 5013 A2d

Butembo-Beni hydro-electrical development. Preliminary study done by Tractionnel (B) on local funds. Detailed economic and technical studies: WLP (UK). Project on appraisal. 5th EDF.
EDF ZR 5006 A2a

T.A. to the O.F.I.D.A. Resp. Auth.: Office des Douanes et Accises du Zaïre (OFIDA). 10 mECU. T.A., supply of equipments, scholarships and training. Customs experts will be chosen among customs officers from EEC Member States Customs Departments. Project in execution. 5th EDF.
EDF ZR 5025 A1b

ZAMBIA

Animal vaccine unit production. Laboratory construction. Supply of equipment and T.A. Estimated cost 3.79 mECU. EDF 3 mECU, local 0.79 mECU. T.A.: Central Diergeneeskundig (NL). 5th EDF.
EDF ZA 5018 A3a

Mkushi electrification. Estimated cost 6.07 mECU. EDF 3.07 mECU. Cofinancing needed. Study on hand: MERTZ-McLENNAN (UK). Project stage: identification. 5th EDF.
EDF ZA 5007 A2a

Animal health improvement. Special hunger programme. Project on appraisal. Date foreseen for financing decision 1st half 86.
958-ZA 5022 A3a

Rehabilitation of the Zambian Copper & Cobalt Mining Industry. II. Resp. Auth.: Z.C.C.M. Sysmin. 28 mECU, Italy 4.5 mECU. Local 4.9 mECU. EDF part supply of equipment by int. tender. 12 int. tender in launched in January and February 86. Project in execution. 5th EDF.
EDF ZA/SYS/5024 A4a

ZIMBABWE

Small-holder Coffee and Fruit Development Programme. Resp. Auth.: Ministry of Lands, Resettlement and Rural Development. EDF 4.2 mECU, local 1.65 mECU. T.A.: I.R.F.A. (F). Project in execution. 5th EDF.
EDF ZIM 5006 A3a

Mashonaland East Smallholder Fruit and Vegetable Programme. Resp. Auth.: Agricultural and Rural Development Authority (ARDA). 2.9 mECU. Works, supply of equipment and materials, T.A. and credit line. Date financing decision January 86. 5th EDF.
EDF ZIM 5012 A3a

Rural water supply in South Matabeleland. Resp. Auth.: Ministry of Energy, Water Resources and Development. Boring, wells, supply of hand pumps (MEWRD). 4.1 mECU. Project on appraisal. Date foreseen for financing decision February 86. 5th EDF.
EDF ZIM 5005 A2b

Overseas Countries and Territories (OCT)

NETHERLANDS ANTILLES

Curaçao slaughterhouse. Resp. Auth.: Departement voor Ontwikkelingssamenwerking, Willemstad, Curaçao. cost 3.45 mECU. Work plans: Bureau T. Janga (Local). Works by int. tender (conditional) launched in December 85. 2nd half 85. Project on appraisal. Date foreseen for financing decision 1st half 86. 5th EDF.
EDF NEA 5012 A3a

Line of credit to the Aruba Dev. Bank to improve agriculture, livestock and fishery. Resp. Auth.: Departement voor ontwikkelingssamenwerking. Estimated cost 0.3 mECU. Project on appraisal. 4th EDF.
EDF NEA 4003 A5a

★ **Tourism improvement . Curaçao. Phase I. Otrobanda sewerage.** Resp. Auth.: Ministry of Public Works. Estimated total cost 5 mECU. EDF 3 mECU, Netherlands 2 mECU. EDF part: sewage, road works, piping. Project on appraisal. 5th EDF.
EDF NEA 5013 A5c

FRENCH POLYNESIA

Tahiti territorial abattoir. Resp. Auth.: Service de l'Economie Rurale, Papeete (Tahiti). Secrétariat d'Etat des Départements et Territoires d'Outre-Mer, Délégation de la Polynésie Française, Paris. Cofinancing with France. 1.270 mECU. Project in execution. 4th EDF.
EDF POF 4003 A3a

NEW CALEDONIA

Reafforestation programme. Resp. Auth.: Territoire de la Nouvelle Calédonie des Eaux et Forêts. Estimated total cost 4.7 mECU. EDF part ± 3 mECU. Cofunding with France, CCCE (F) and Local. 3.000 ha plantation "Pin de Caraïbes" with all necessary infrastructure and investment. Project on appraisal. 5th EDF.
EDF NC 5003 A3c

MONTSERRAT

Water Supply Project. Resp. Auth.: Montserrat Water Authority and Ministry of Public Works. 1.1 mECU. Project planning: Short-list already drawn up for restr. tender. Project on appraisal. 4th and 5th EDF.
EDF MON 5001 A2b

PACIFIC OCT

Regional programme rural photovoltaic electrification. Resp. Auth.: SPEC. Esti-

mated total cost 4.365 mECU. EDF 3.184 mECU. T.A.: short-list done for restr. tender. Supplies by int. tender launched in January 85. Project in execution. 5th EDF. EDF REG 5715 A2a

Regional Projects

CENTRAL AFRICAN REP. — CONGO

Aid to the "Service Commun d'Entretien des Voies Navigables. (SCEVN). Estimated cost 3.3 mECU. Supply of equipment and improvement of the maintenance base in Bangui. Int. tender (conditional) launched in August 85. Date financing decision January 86. 5th EDF. EDF REG 5202 A2c

MEMBER COUNTRIES OF CEAO

ESITEX Ségou (Mali). Resp. Auth.: CEAO Secretariat. Management training for textile industry. Complex construction in Ségou. Supply of equipment. Project stage: identification. 5th EDF. EDF REG 5118 A6d

MEMBER COUNTRIES OF CEDEAO

Trade and investment promotion in West Africa (Forum industriel de l'Afrique de l'Ouest-Dakar). Resp. Auth.: CED-EAO. 0.700 mECU. Information and investment promotion and organization of the Forum. Project on appraisal. Date foreseen for financing decision February 86. 5th EDF. EDF REG 5142 A1b

MEMBER COUNTRIES OF OCCGE ORGANISATION DE COORDINATION ET DE COOPERATION POUR LA LUTTE CONTRE LES GRANDES ENDEMIES

Strengthening of the OCCGE Centres. Resp. Auth.: National Authorizing Officer in Côte d'Ivoire. 0.500 mECU. Purchase of vehicles and equipment. Project on appraisal. Date foreseen for financing decision February 86. 4th EDF. EDF REG 4082 A3a

WESTERN AND CENTRAL AFRICAN COUNTRIES MEMBERS OF THE CONFERENCE MINISTERIELLE SUR LE TRANSPORT MARITIME

Académie régionale des Sciences et techniques de la mer in Abidjan. Resp. Auth.: Ministère de la Marine, Côte d'Ivoire. Estimated total cost 32 mECU. EDF part for pedagogical equipment 2 mECU. Works, T.A. and other equipment: BAD, Japan, Norway, UNDP, France and local. Int. tender for supplies at pedagogical equipment launched in December 85. Project in execution. 5th EDF. EDF REG 5134 A6b

GUYANA — SURINAME

Guyana — ferry-link. Resp. Auth.: Ministry of Public Works and Ministerie van

Openbare Werken. Link ferry on Corentine river. Study under way by C.A. Liburd and Ass. + Sescon Group (ACP). 4th and 5th EDF. EDF REG 5602 — 4084 A2d

MEMBER COUNTRIES OF M.R.U. (MANO RIVER UNION)

Telecommunication and Postal Training Institute (TPTI) of the MRU. Resp. Auth.: MRU Secretariat in Freetown. Extensions, supplies and training. Estimated total cost 8.5 mECU. EDF 2.5 mECU. Project on appraisal. 5th EDF. EDF REG 5104 A6b

NIGER BASIN AUTHORITY

Protection and reforestation in the "Haut Bassin Versant du fleuve Niger en Guinée". Works, supplies and T.A. Estimated total cost 1.5 mECU. Project stage: identification. 5th EDF. EDF REG 5112 A8f

ZAIRE — CONGO — GABON — SAO TOME AND PRINCIPE — EQUATORIAL GUINEA — CAMEROON

Fishery development in the Gulf of Guinea. Estimated cost ± 5 mECU. T.A. to prepare these projects: Short-list done. Project on appraisal. 5th EDF. EDF REG 5206 A3d

SENEGAL — MAURITANIA

Establishment of cultivated areas in the Senegal River Valley. Special hunger programme. 2.380 mECU. Project in execution. 958-REG 5140 A3a

BURKINA FASO — CAPE VERDE — CHAD — GAMBIA — MALI — MAURITANIA — NIGER — SENEGAL

Establishment of a regional plan for food policy and ecology. Special hunger programme. 0.135 mECU. Project in execution. 958-REG 5141 A8f

MEMBER COUNTRIES OF UDEAC

Sub-Regional Institute for Applied Technology and Planned Economy (ISTA). Resp. Auth.: ISTA Secretariat in Libreville-Gabon. Estimated cost ± 6 mECU. Building centre construction and T.A. for 3 actions. Project on appraisal. 5th EDF. EDF REG 5210 A6b

PACIFIC ACP COUNTRIES

Pacific Regional Tourism Programme. Resp. Auth.: Tourism Council of the South Pacific (TCSP) and SPEC. 3.2 mECU. Study to be done: data base, organization and strategy. Short-list already drawn up. for restr. tender. Project in execution. 5th EDF. EDF REG 5714 A5c

Pacific Regional Aircommunications. Stage I. Resp. Auth.: SPEC. 4.6 mECU. Buildings, runways and supply of navigational aids. Project on appraisal. 5th EDF. EDF REG 5717 A2d

MEMBER COUNTRIES OF CILSS

Provisional survey of natural renewable resources in the Sahel. Resp. Auth.: CILSS Secretariat. Estimated cost 6 mECU. EDF ± 2 mECU. Setting up of an observation unit to forecast crop production. Remote sensing by satellite, air survey and ground control. Project in execution. 5th EDF. EDF REG 5116 A8f

Millet, maize, sorghum and niébé project. Resp. Auth.: CILSS Secretariat. Estimated cost 2 mECU. To provide improved varieties for farmers. Local tests. Purchase of vehicles and equipment and to take charge for local tests control staff. Project stage: identification. 5th EDF. EDF REG 5116 A3a

MEMBER COUNTRIES OF U.A.P.T.

Satellite telecommunications project. Resp. Auth.: U.A.P.T. Secretariat in Brazzaville. R.P.C. Parametric study under way by national organizations of I, UK, F and D. Project stage: identification. 5th EDF. EDF REG 5307 A2c

EAST AFRICAN COUNTRIES

Statistical training centre for Eastern Africa in Tanzania. Resp. Auth.: Secretariat of the centre. 2.0 mECU. Widening of the capacity. Construction of class-rooms, offices and housing. Project stage: identification. 5th EDF. EDF REG 5311 A6b

Kabale-Gatuna Road. Resp. Auth.: Uganda Government. Estimated cost 2.5 mECU. Asphaltting of the road (21 km) up to the Rwanda border. Study to be done: final dossier and tender documents. Short-list already drawn up. Project on appraisal. 5th EDF. EDF REG 5329 A2d

DJIBOUTI-ETHIOPIA

Djibouti-Ethiopia Railways. Phase II. Resp. Auth.: CFDE (Compagnie du Chemin de Fer Djibouti-Ethiopie). Estimated total cost 28 mECU. EDF 15 mECU, France 13 mECU. Supply of rails, wagons and equipment. Int. tender launched in January 86. T.A.: C. Lotti (I). Project in execution. 5th EDF. EDF REG 5301 A2d

CAMEROON — COTE D'IVOIRE — GHANA — MAURITIUS — SENEGAL — ZAIRE

Strengthening of scientific and technical capacities in the field of food and nutrition in Africa. Resp. Auth.: Association des Universités africaines. AUA. 1.5 mECU. T.A., training, supply of equipment, production and diffusion of scientific information. Date financing decision January 86. 5th EDF. EDF REG 5054 A3a

AFRICAN COUNTRIES

Campaign against rinderpest in African. Resp. Auth.: OUA and IBAR. Estimated

total cost for 2 years 50 mECU. Supply of equipment T.A. vaccines and research. Date financing decision January 86. 4th and 5th EDF.
EDF REG 5007 - 4085 A3a

S.A.D.C.C.

Maseru Container Terminal. Resp. Auth.: Lesotho GOL and SADCC. 1.350 mECU. Construction of container terminal and supply of containers, handling equipment. Study required: detailed design of works. Short-list already drawn up. Project on appraisal. 5th EDF.
EDF REG 5421 A2d

BOTSWANA - SWAZILAND - ZIMBABWE

★ **Regional Railway Training. Phase II.** Estimated cost 2 mECU. Project on appraisal. 5th EDF.
EDF REG 5410 A2d

MALAWI - ZAMBIA - ZIMBABWE

Regional Tsetse and Trypanosomiasis Control Programme. Resp. Auth.: Technical and financing responsibility: Zimbabwe national authorizing officer. 19.150 mECU. Works by direct labour. Vehicles, veterinary products, aerial spraying and equipments by int. tender. T.A. by direct agreement. Int. tender for vehicles and insecticides launched in October 85. Project in execution. 5th EDF.
EDF REG 5420 A3a

MEMBER COUNTRIES OF CARICOM

Regional hotel trade school in St Lucia. Resp. Auth.: Caricom Secretariat. Estimated total cost 0.9 mECU. EDF 0.2 mECU. Work financed locally. EDF part: supply of pedagogical equipment, furniture and 1 vehicle. Project on appraisal. 5th EDF.
EDF REG 5635 A6d

Assistance for Point-Salines International Airport-Grenada. Resp. Auth.: Caricom Secretariat and Grenada Int. Airport Authority. EDF part 1.74 mECU, T.A. and supply of radio and electronic navigational equipment. T.A. by direct agreement. Equipment by int. tender. Date foreseen for financing decision 1st half 86. 5th EDF.
EDF REG 5608 A2d

Moko Disease Control. Resp. Auth.: Windward Islands Banana Growers Association (WINBAN). 0.900 mECU. Works, supplies and T.A. Project in execution. 5th EDF.
EDF REG 5675 A3a

CARIBBEAN AND ACP COCOA PRODUCERS

Cocoa Research Unit (CRU), Phase II. Resp. Auth.: CRU in Trinidad. 2.624 mECU. Works, supply of equipments and agricultural inputs, T.A. and training. Project in execution. 5th EDF.
EDF REG 5043 A3a

MEDITERRANEAN COUNTRIES

EGYPT

Soil improvement programme in Ka-freeel-Sheikh Governorate. Resp. Auth.: Executive Authority for Land Improvement Projects (EALIP). Provisional amount 8 mECU. To reclaim an area of 65 000 acres of saline soil, located in Hamoul district of the Kafre-el-Sheikh Governorate. Short-list already drawn up. Project in execution.
MMI EGT 1001 A3e

Egyptian Renewable Energy Development Organization. EREDO. Resp. Auth.: Egyptian Government. EEC contribution 7.7 mECU. Construction and equipment for the centre. Works and supplies: int. tender with prequalification foreseen in 1st half 86. T.A.: GET/KFA (D). Int. tender dossier: Phoebe (I).
MMI EGT 1002 A2a

Feasibility study for Thermal Power Station at Sidi-Krir. Resp. Auth.: Egyptian Electricity Authority. Study for a 1200 MW thermal power station. Estimated cost 2 mECU. Short-list already drawn-up.
MMI EGT 2004 A2a

Export Promotion. Resp. Auth.: Egypt Export Promotion Company (EEPC). T.A. to the EEPC. 0.920 mECU. Short-list already drawn up. Project in execution.
MMI EGT 2005 A5e

Kom-Ombo Soil Improvement Study. Resp. Auth.: EALIP. 1 mECU. Project in execution. Short-list drawn up.
MMI EGT 2003 A3e

Animal feed improvement. Resp. Auth.: Research Institute for Animal Production (RIAP) - Cairo. EEC Contribution 1.3 mECU. T.A., supply of equipment and training. T.A.: M. Barker (UK). Int. tender for supplies launched in February 86. Project in execution.
MMI EGT 2001 A3a

ALGERIA

Training for heavy industry. Resp. Auth.: Ministère de l'Industrie Lourde (MILD). 3.9 mECU. T.A., training, supply of pedagogical equipment. Project on appraisal.
MMI aL 2003 A6d

Training for Ministry of Public Works. Resp. Auth.: Ministère des Travaux Publics. Direction de la Formation. EEC contribution 2.75 mECU. T.A., training, scholarships and supply of pedagogical equipment. Project on appraisal.
MMI AL 2002 A6d

Support to the «Ministère de l'Enseignement supérieur et de la recherche scientifique» (MESRS). Resp. Auth.: MESRS. 2.2 mECU. Training and supply of scientific equipment and T.A. Project on appraisal.
MMI AL 2004 A4g

TUNISIA

Participation in creating 3 Training Vocational Centres: in Nabeul, Menzel-Bourguiba, Zaghouan. Resp. Auth.: O.T.T.E.E.F.P. (Office des Travailleurs Tunisiens à l'Etranger de l'Emploi et de la Formation Professionnelle.) EEC Contribution 3.87 mECU. Supply of equipment, T.A. and training. Supplies: int. tender for Nabeul launched in February 86. T.A.: A.A.B. (D).
MMI TUN 1001 A6d

Experimental station to compost household refuse in the city of Tunis. Special hunger programme. 0.800 mECU. T.A.: Short-list done. Int tender launched in February 86. Project in execution.
958-TUN 0001 A2a

Date-palm plantations study project in Régime Maatoug. Resp. Auth.: Banque Nationale de Dév. Agricole (B.N.D.A.). 1.9 mECU. Feasibility study, drillings and access roads. Works by direct labour. Study: Short-list done. Project on appraisal.
MMI TUN 2001 A3a

Rural credit project to benefit small holders. Resp. Auth.: B.N.D.A. Estimated cost 16 mECU. Project on appraisal.
MMI TUN 2002 A3a

Water resources research and training study. Resp. Auth.: Ministère de l'Agriculture. 1.0 mECU. Supply of soil equipment and data system. T.A. and training. Project on appraisal.
MMI TUN 2004 A2b

Evaluation of soil resources and their liability to desertification in Southern Tunisia. Resp. Auth.: Ministère de l'Agriculture. Estimated cost 1.2 mECU. EEC 0.400 mECU, local 0.800 mECU. T.A. and training. Supply of specialized equipment. Project on appraisal.
MMI TUN 2005 A3c

Management improvement in the public irrigated areas in Tunisia. Resp. Auth.: Ministère de l'Agriculture. EEC contribution 2 mECU. Rehabilitation of hydro-electric equipment, training and T.A. Project on appraisal.
MMI TUN 2006 A3A

T.A. to the "Unités Coopératives de Production Agricole (U.C.P.A.). Resp. Auth.: B.N.D.A. 1.800 mECU. T.A., training and supply of equipment. Project on appraisal.
MMI TUN 2007 A3a

JORDAN

Yarmouk University - Faculty of Science. Resp. Auth.: University of Yarmouk. 2.5 mECU. Supply of equipment for laboratories by int. tender launched in October 85. T.A. by restr. tender: short-list done. Project in execution.
MMI JO 2001 A6c

Faculty of Engineering and Technology, University of Jordan, Phase II. 2 mECU. Supply of equipment, A.T. and training. Project on appraisal. Date foreseen for financing decision 1st half 86.
MMI JO 2002 A6a

SYRIA

ISSAT. Institut Supérieur des Sciences Appliquées et de Technologie. Resp. Auth.: State Planning Commission. Estimated total cost 22.2 mECU. EEC part: supply of teaching and training equipment for the institute. Project on appraisal. MMI SYR 2002 A3b

Euphrates drainage and irrigation. Resp. Auth.: Ministry of Irrigation. General Organization for land development (GOLD). Estimated total cost 134.9 mECU. EEC 10 mECU, EIB 20 mECU, local 104.9 mECU. Works, supplies and T.A. Project in execution. MMI SYR 2003 A3a

Rural Water Supply Suweida Region. Resp. Auth.: Ministry of Local Administration and Ministry of Housing and Utilities. Estimated total cost 8.1 mECU. EEC 3.2 mECU, local 4.9 mECU. Project in execution. MMI SYR 2001 A2b

Non-associated developing countries

ANGOLA

Assistance to the fishing and fish-processing industry in the Namibe Province. Resp. Auth.: Ministerio das Pescas. EEC 4.250 MECU. Supply of equipment and T.A. Project on appraisal. Date foreseen for financing decision December 85 or 1st half 86. ALA ANG 8415 A3d

Rural Water supply. Resp. Auth.: Ministère de l'Industrie et des Ressources Naturelles. HYDROMINA. Parallel cofinancing with UNICEF. EEC contribution 2.250 mECU. Study, T.A. and supply of hand-pumps, tubes, drilling equipment, vehicles. Project in execution. ALA ANG 8425 A2b

MOZAMBIQUE

Rural development in the Moamba District. Resp. Auth.: Ministerio da Agricultura. Estimated total cost 9.15 mECU. EEC 7.5 mECU. Supply of equipment, rural inputs and T.A. Project on appraisal. Date foreseen for financing decision 1st half 86. ALA MOZ 8333 A3a

Environmental conservation measures: fight against tse-tse infestation. 1.5 mECU. Special hunger programme. Project in execution. 958-MOZ A3a

Fishery development and rehabilitation. Resp. Auth.: Secrétariat d'état pour la pêche. Total estimated cost 8.885 mECU. EEC 7.4 mECU. Supply of equipment and T.A. Project in execution. ALA MOZ 8507 A3d

BANGLADESH

Small-scale irrigation sector project. Resp. Auth.: Bangladesh Water Development Board (BWDB). Estimated total cost 82 mECU. EEC contribution 12 mECU. Cofinancing with ADB (Asian Dev. Bank). Works, supply of equipment and vehicles, T.A. and supervision. Works: acc. tender. Supplies: int. tender, 1st half 86. ALA BD 8112 A3a

Building of storage for fertilizers. Resp. Auth.: Bangladesh Agricultural Development Corporation (BADC). Cofinancing: EEC and Netherlands. Total cost 4 mECU. EEC 2 mECU Netherlands 2 mECU. EEC part: Works by int. tender. Netherlands part: buildings and T.A. ALA BD 8201 A3f

Rangpur. Rural Development Programme. Resp. Auth.: Central Coordination Committee. (CCC). Total cost 40 mECU. EEC 25.5 mECU, NL 7 mECU, local 6 mECU. Works by acc. tender. Supplies by int. tender or direct agreement. Project in execution. ALA BD A3e

Cotton Development. Phase II. Resp. Auth.: Central Coordination Committee (CCC) and Cotton Development Board (CDB). EEC 4.9 mECU. Supply of T.A. training and equipment. Project in execution. ALA BD 8504 A3a

CHINA (PEOPLE'S REP.)

Fruit Cultivating and Preservation Techniques. Estimated total cost 4.350 mECU. EEC 1.650 mECU. Cofinancing with Italy. T.A. and transfer of technology. T.A.: Applies: B.D.P.A. (F). Citrus: Media Coop (I). Project in execution. ALA CHN 8337 A3a

Flood forecasting and management of Beijiing River. Estimated total cost 5.5 mECU. EEC 1.7 mECU T.A. and transfer of technology. Project in execution. Prequalification launched in October 85. ALA CHN 8338 A8g

Prawn farming development. Estimated cost 0.700 mECU. Supplies and T.A. T.A.: Fish Farming Int. (UK). Project in execution. ALA CHN 8341 A3d

Hainan Cashew Development. Resp. Auth.: Prefecture of the Autonomous Department of Li and Miao National Minorities. Estimated total cost 2.350 mECU. EEC 0.800 mECU. Supply of equipment and T.A. T.A.: K.I.T. (NL). Project in execution. ALA CHN 8340 A3a

Vegetable Seedling Production in Beijing. Estimated cost 1.2 mECU. Supplies and T.A. T.A.: Oranjewoud (NL). Project in execution. ALA CHN 8339 A3a

★ **Gansu Sugar Beet Development.** Resp. Auth.: Gansu Province Department of Agriculture. EEC contribution 1 mECU. T.A., training and supply of equipment. Project on appraisal. Date foreseen for financing decision April 86. ALA CHN 8517 A3a

INDONESIA

Bali Irrigation Sector Project. Resp. Auth.: Ministry of Public Works. DG for Water Resources Development. EEC 12 mECU. ADB ± 37 mECU. Local ± 55 mECU. Rehabilitation and expansion of 50 village-level irrigation schemes, establishment of a water-management training centre, and establishment of climatological stations. T.A. Works: acc. tender. ALA IND 8114 A3a

Provincial Irrigation Development (Western and Central Java). Resp. Auth.: D.G.W.R.D. Estimated total cost 423.6 mECU. EEC 26.3 mECU, World Bank 232.6 mECU, local 164.7 mECU. EEC part: dam construction and T.A.: study, execution project and tender dossier. Prequalification for dam construction launched in August 85. Project on appraisal. Date foreseen for financing decision April 86. ALA IND A3a

INDIA

Development of Water Control Systems for diversification of crops in Maharashtra. Resp. Auth.: Irrigation Department of the Government of Maharashtra. EEC contribution 15 mECU. Works, supplies, T.A. and training. Project in execution. ALA IN 8418 A3a

Supply of fertilizers. Resp. Auth.: Minerals and Metals Trading Corporation of India (MMTC). 45 mECU. Supply of urea by int. tender (conditional) launched in January 86. Project on appraisal. Date foreseen for financing decision February 86. ALA IN 8512 A3a

YEMEN

Seed production centre. Estimated cost 5.8 mECU. Project in execution. ALA YAR A3a

PAKISTAN

Karachi fishing port. Resp. Auth.: Fishery department of the Sind Province. Estimated cost 12 mECU. New facilities: quay, boat repair yard, fish-shed, dredging. Rehabilitation of existing facilities, equipments and TA. TA: Prof. Dr. Lockner & Partners (D). Works and supplies in 86. ALA PAK 8101 A3d

Irrigation project in Palli and Lehri. Resp. Auth.: Department of Irrigation and Agriculture Baluchistan Provincial Government. Estimate ± 10 mECU. Works and infrastructures. Studies for the execution and supervision of works. Project on appraisal. Date foreseen for financing decision 1st half 86. ALA PAK 8422 A3a

NEPAL

Nepal Administrative Staff College. NASC. Resp. Auth.: NASC Secretariat. Estimated total cost 6.5 mECU. EEC 5 mECU, U.K. 1.5 mECU. Renovation and construction works, supply of equipment and training. Project in execution. ALA NEP 8407 A6b

Soil and water conservation in Bagmati Watershed. Special hunger programme. 5.5 mECU. Project in execution. 958-NEP 8401 A3a

BHUTAN

Water supply. Resp. Auth.: Inter dep. Commission on water and sanitation. Works by direct labour. 4.5 mECU. Supplies int. tender or direct agreement. T.A.: UNICEF. Project in execution. ALA BHU A2b

★ **T.A. programme to the Department of Agriculture.** Resp. Auth.: Ministry of Agriculture and Forests. 1.1 mECU. Two experts during 3 years. 1 Rural Development Engineer and 1 agro-economist. Short-list not yet drawn up for restr. tender. Project on appraisal. Date foreseen for financing decision March 86. ALA BHU 8513 A3a

THAILAND

Oilseed crop development programme. Resp. Auth.: Ministry of Agriculture — Oilseed Project Steering Committee. Total estimated cost 4.2 mECU. EEC 3.3 mECU. T.A. and supply of equipment. T.A.: Crown Agents (UK). ALA TH 8203 A3a

Mae Nam Chi River Basin. Water Management Development. Resp. Auth.: Ministry of Agriculture and Cooperatives. Royal Irrigation Department. Estimated total cost 5 mECU. EEC 4 mECU. Supply of equipment, T.A. and training. Project in execution. ALA TH 8412 A3a

Strengthening of planning capacities for diversification and rural development. Resp. Auth.: Ministry of Agriculture and Cooperatives. 2 mECU. T.A. for coordination, management, training needs, project identification and planning. T.A. for central and peripheral computer system for rural areas. Training and supply of computerized equipment. Short-list done. Project in execution. ALA TH 8420 A3a

Rural credit and rubber planting. Resp. Auth.: Ministry of Agriculture and Cooperatives. 35 mECU. Supply of lines of credit, T.A., training, rural inputs, equipments. Project on appraisal. Date foreseen for financing decision December 85. Int. tender for fertilizers launched in November 85 (conditional). ALA TH 8509 A3a

PACTO ANDINO MEMBER COUNTRIES

Technical cooperation (industry and economic planning). Resp. Auth.: Junta del Acuerdo de Cartagena, Lima-Peru. Estimated total Cost: 1.7 mECU. EEC 1.1 mECU. To place experts, equipment and T.A. and training at Junta's disposal. Contracts, T.A. and experts by the Junta and the EEC. ALA JUN 8107 A4a

Andean Programme for technological development (Rural PADT). Resp. Auth.: Junta del Acuerdo de Cartagena, Lima-Peru. Estimated total Cost: 7.560 mECU. EEC 3.927 mECU. Supply of equipment, training and T.A. Vehicles purchase: int. tender. T.A.: Short-lists to be drawn up by the EEC and decision by the Junta. ALA JUN 8108 A3a

Regional programme for technical cooperation: food strategy. Resp. Auth.: JUNAC. EEC contribution 7 mECU for European T.A. and supply of data-computerized equipment by int. tender. Project in execution. ALA JUN 8406 B1a

Regional programme for technical cooperation: industry and sub-regional exchanges. Resp. Auth.: JUNAC. EEC Contribution 7 mECU. T.A. and supply of equipment. Project in execution. ALA JUN 8503 A4a

COSTA RICA — HONDURAS — NICARAGUA — PANAMA — DOMINICAN REPUBLIC

Latin American qualified nationals reinstatement in 5 Central American countries. Resp. Auth.: CIM (Comité Intergouvernemental pour les migrations). 1.4 mECU. Reinstatement of 75 qualified nationals via CIM. Date foreseen for financing decision 1st half 86. ALA CIM 8302 A8b

COLOMBIA

Reconstruction Programme. Resp. Auth.: Corporation de Reconstruction de Cauca. Total cost 5.9 mECU. EEC 3.9 mECU. EEC part: supply of materials and T.A. Project in execution. ALA CO 8403 A8a

★ **Microprojects programme in the pacific coastal.** Line of credit, T.A. and train-

ing, EEC contribution 4 mECU and supply of equipment. Project on appraisal. Date foreseen for financing decisions March 86. ALA CO 8516 A3a

BANCO CENTRO-AMERICANO DE INTEGRACION ECONOMICA

Support for SME in Central America. T.A. MPR (D) — DELFT UNIVERS. (Neth) — S.O.D. (F). AFNOR. ALA BCI 8414 A4a

DOMINICAN REPUBLIC

Integrated rural development pilot project in Western Cibao. 6 mECU. Special hunger programme. Project in execution. 958-DO 8402 A3a

COSTA RICA

Productive projects programme for refugees in Costa Rica. T.A. and line of credit. 3.6 mECU. Project in execution. ALA CR 8501 A8b

Integrated rural development of the region of OSA/GOLFITO. Total cost 21.635 mECU. EEC 9.95 mECU. Supply of equipment, infrastructural works, maintenance, lines of credit and T.A. Project in execution. ALA CR 8506 A3a

PANAMA — COSTA RICA — NICARAGUA — HONDURAS — EL SALVADOR — GUATEMALA

Regional programme of technical cooperation for food security. Resp. Auth.: CADESCA (Comité de acción para el desarrollo economico y social de centroamerica — Panama). Total cost 9.07 mECU. EEC 4.82 mECU, France 0.350 mECU, local 3.9 mECU. T.A. training and supply of equipment. Project in execution. ALA REG 8505 A3a

ECUADOR

Rural development in the region of the Chambo river. Resp. Auth.: Institut Equatorien des Ressources Hydrauliques (INERHI). EEC 9 mECU. T.A. and training, irrigation works, line of credit, supply of equipment. Project on appraisal. Date foreseen for financing decision May-June 86. ALA REG 8508 A3a

INTERNATIONAL CALLS FOR TENDER

All international calls for tender (int. tenders) referred to in this Operational Summary are notified in due time in the Official Journal (O.J.) of the European Communities' «S» supplement.

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Manfred WÖHLCKE — Ein Dritter Weg für die Dritte Welt? (A Third Way for the Third World?) — Stiftung Wissenschaft und Politik/SWP, Ebenhausen: Nomos Verlagsgesellschaft Postfach 610, 7570, Baden-Baden.

The concept of a "third way" between capitalism and socialism was designed for, and is applied to, very different historical and regional contexts. For the purposes of the Third World, the third way is a strategy for catching up in nation-building, in an international system characterized by the gap in development and power between North and South and the conflict between East and West. In this sense the third way is an answer to the question of how, in conditions of underdevelopment and dependence, to create the conditions for integrated and self-sustaining development at home, emancipated from outside dependence.

What is often seen as the right course between the Scylla of capitalism and the Charybdis of communism, as embodied in the policies of Third World countries, often leads to disaster. None the less, the Third World is always trying again.

This study depicts the main features of the third way in theoretical terms; the opportunities and problems of development policy, domestic policy and foreign policy are set out. It also discusses how a development and alliance strategy is to be assessed in the light of Western security interests. This super-regional analysis is supplemented with an appendix containing "classical" texts and draft programmes.

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Europe Review 1986 — First Edition, published by World of Information, 21, Gold Street, Saffron Walden, Essex, Gt. Britain — 236 pages — £25.00 (UK), £32.00 (Middle East/Africa), £37.00 (rest of world) postage included — 1985

Bankers, industrialists, journalists and civil servants who have, for a number of years, made use of the World of Information series (Middle East Review, Africa Review, Latin America and Caribbean Review and Asia and Pacific Review) must welcome this addition to the collection.

The format follows a well-established pattern: a series of facts and figures, a glossary of economic terms and some penetrating essays on Europe in 1985, East-West relations and Euro-American relations. Then follows the meat of the book: 37 country profiles, including even Andorra, San Marino, the Vatican and Monaco.

Since this is the first edition of Europe Review, the profiles are perhaps more detailed than those in sister publications, but the series' main preoccupation—that of timeliness—is not forgotten. Events of the past year, including most relevant economic indicators, are chronicled in detail and set in a general post-war framework. Future editions will have the easier task of simply bringing the reader up to date.

The format is an agreeable one—easy to use, well laid out and provided with maps and charts. But the work's value rests on the political and economic knowledge and skills of the thirty contributing journalists. The work they put in is not that of compiling lists or explaining statistics. They provide a timely, penetrating analysis of each country treated with facts and figures enough to illustrate but not to overwhelm. It is to be hoped that Europe Review will receive the support of a readership as wide as that of its sister reviews, and that it takes its place alongside them as an invaluable guide to all those requiring comprehensive and comprehensible information.

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Antonio ALONSO — *Espana en el Mercado Comun — Del acuerdo del 70 a la Comunidad de Doce*, con prologo

de José Maria de Areilza, Espasa Calpe, Madrid — 332 pages — 1985

This first volume of the series with the significant title "Nueva Europa", is a detailed, precise and personal account of what is a real "venture". Though one can say that Spain has come a long way after a long, self-imposed exile, one can also say that it has found itself and its best traditions, with the key to the future in its hands. Reading this book, one can see that despite the ups and downs and often peripheral arguments, Spain will make a positive—and for many people—unexpected contribution to the founding of a new Europe, a Europe which is in charge of its own destiny, which is generous, open, efficient and democratic. In his preface, Mr de Areilza, a former Spanish Foreign Minister, remarks that "to go over the main points of the continued effort which began in 1962 and which ended with the official signing in the Royal Palace in Madrid in June 1985, is an admirable piece of analysis with careful documentation." We should point out that the author of the book had himself first hand experience of these interminable negotiations between 1965 and 1975 as part of the Spanish delegation which negotiated the 1970 Treaty and then as a diplomatic adviser to the Spanish Mission to the Communities. He then headed the Spanish Employers' organization (CEOE) which was closely involved in talks with the Spanish Government until negotiations were concluded. Complete with a detailed chronology, this book is a basic work for all those who wish to know more about this period of Community history.

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Back cover: Out on the frontiers of Chad and Niger the Sahel becomes even more barren. In the driest part of the year, water is found only at the bottom of holes, "lucky" wells where the stagnant water gets more polluted and muddier as the depth increases (Photo Vivant Univers)

