

# The Courier

AFRICA-CARIBBEAN-PACIFIC - EUROPEAN COMMUNITY

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**Irrigation**

## THE EUROPEAN COMMUNITY

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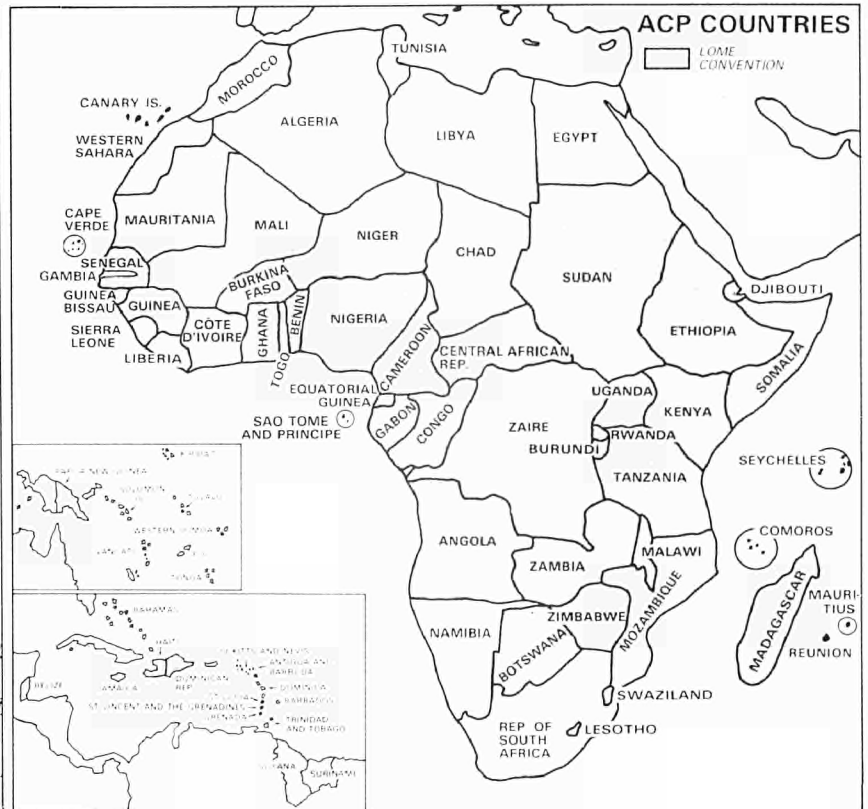
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## THE 68 ACP STATES

**ANGOLA**  
**ANTIGUA & BARBUDA**  
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**BOTSWANA**  
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**GUINEA BISSAU**  
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**HAITI**  
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**MAURITIUS**  
**MOZAMBIQUE**  
**NIGER**  
**NIGERIA**  
**PAPUA NEW GUINEA**  
**RWANDA**  
**ST. KITTS AND NEVIS**  
**ST. LUCIA**

**ST. VINCENT AND 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

(Territorial collectivities)

Mayotte  
 St Pierre and Miquelon

(Overseas territories)

New Caledonia and dependencies  
 French Polynesia  
 French Southern and Antarctic Territories  
 Wallis and Futuna Islands

### NETHERLANDS

(Overseas countries)

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

### DENMARK

(Country having special relations with Denmark)  
 Greenland

### UNITED KINGDOM

(Overseas countries and territories)

Anguilla  
 British Antarctic Territory  
 British Indian Ocean Territory  
 British Virgin Islands  
 Cayman Islands  
 Falkland Islands  
 Southern Sandwich 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.

## NEWS ROUND-UP

Meeting in Luxembourg in September, the **ACP-EEC Joint Assembly** debated the effects of the Gulf crisis on the economies of the ACP States. The gloomy outlook provoked by higher oil prices prompted many calls for additional assistance. Other important items on the agenda included the Perschau Report on the priorities for Lomé IV and a hearing on the role of women in development, addressed among others, by Mrs Maryam Babangida, First Lady of Nigeria. **Pages 1 to 14**

## MEETING POINT: Isaac Akinrele



After 13 1/2 years, (the last five as Director), Dr Isaac Akinrele is leaving the Centre for Industrial Development. Before handing over the reins to Belgian, Mr Paul Frix on 30 September, he spoke to the Courier about the work of the CDI — the successes and the undeniable weaknesses. **Pages 2 to 5**

## COUNTRY REPORTS

**ANTIGUA and BARBUDA:** Taking advantage of its historical link to Admiral Horatio Nelson and of its hundreds of fine beaches, inlets and bays, the twin-island state of Antigua and Barbuda has built an economy that is heavily dependent on tourism. The transition from an economy that was entirely based on sugar and cotton has been very smooth. But diversification is proving elusive. **Pages 28 to 40**



**BURUNDI:** While national unity existed for centuries, Burundi in recent times has had to face up to ethnic and regional divisions, culminating on occasions in bloody "events". The most recent of these occurred as recently as August 1988. Today, the challenge is clear: to achieve reconciliation and to restore national unity. Without this,

development will not take place. Burundi's dependence on the near monoculture of coffee makes it a test case. Can this landlocked and heavily populated LDC continue to maintain the precarious balance between its present self-sufficiency in food and the pressure of its population? **Pages 41 to 59**

## DOSSIER: Irrigation

For many ACP countries confronted with a rapidly increasing population, agricultural irrigation is one response to the ever-growing demand for food. But the hydro-agricultural schemes implemented in the last two decades have seldom achieved the results which were originally anticipated. **Pages 64 to 95**



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### Dr Isaac AKINRELE

# “The CDI has done something quite remarkable”

*At the end of his mandate, Isaac Akinrele, the Nigerian Director of the Centre for the Development of Industry, leaves the organisation he has headed for the last five years. He joined the CDI 13 years ago, first as Deputy Director, a post for which he served two consecutive terms, before acceding to the directorship. He is being replaced by Paul Frix of Belgium with Surendra Sharma of Fiji, as his Deputy (see Courier No 123 page 3, Industrial opportunities).*

*Before leaving office, Dr Akinrele spoke with the Courier.*



▶ *The Lomé Convention is now well-known, particularly in the ACP countries. Can the same be said about the CDI after 13 years of existence?*

— Our experience in the field clearly shows that if the Lomé Convention is well known to the public sector, it is not that known by the private sector. And it is that gap that the CDI has in fact been trying to bridge. Its mission has largely been to mobilise the private sector to become aware of the opportunities and the provisions of the Lomé Convention. And one of the successes the CDI can already begin to claim, is that it has been able to get Lomé to accept the reality of bringing in the private sector of ACP States to benefit from the overall provisions of the Convention.

▶ *What facts do you have to back up this claim that CDI is well known in the private sector now?*

— Well, I have not said it is well known. I said it has been trying to stimulate the private sector to become aware of the Lomé Convention. That's why we organised a number of industrial cooperation meetings in all the regions of the ACP Group. First to bring the message to the private sector; the people in business, about the opportunities offered under the

Lomé Convention, and also, at the same time, to tell them how the CDI could assist them to get linked to the business sector in Europe.

▶ *And this message has been put across?*

— I think it has been very well put across. One of the remarkable effects of it has been the tremendous inflow of requests and demands. I believe even the Courier has had some kind of impact from this. Within the framework of the principal instruments of the Convention, the National Indicative Programmes, it has also stimulated a demand through NGOs, through various other agencies in the ACP States, to begin to look at Lomé as an instrument for the economic sector, not merely for the public sector.

▶ *What the CDI tries to do is to promote joint ventures, but there are other organisations in the world trying to do the same. What makes the specificity of the CDI?*

— Well, the CDI actually introduced this concept largely to small and medium sized industries. Traditionally, joint ventures are thought of in terms of large multinational companies and projects; so the CDI's

specificity in bringing these down to the realm of small and medium sized industries is unique. The profile of joint ventures which we are promoting relates to joint investments; in other words, both parties taking a stake—a meaningful stake—in the project, not just signing management or technical assistance agreements. This is real venture participation by both sides which enables a package of possibilities like being able to ensure effective transfer of technology, training, transfer of know-how between those who hold the technologies and those who are acquiring them. So the joint venture framework of the CDI is unique in allowing that physical contact at the investment capital level as well as the technical know-how level.

▶ *What do you see as the CDI's biggest achievement over the years?*

— It is most important to recognise that ACP countries have a certain potential which can be developed. It's not just merely giving aid, but actually drawing attention to the need to develop the economic potential of the ACP countries and the CDI has largely done this, first by carrying out industrial potential surveys in these countries, seeking to identify specific projects with a viable poten-

tial, and by bringing an input from Europe directly to develop these potentials to improve on the economic performance of the ACP States.

I also think that the CDI has done something quite remarkable in terms of being able to persuade European industry actually to co-finance some of its interventions. Currently we have an annual contribution of over ECU 2 million, in co-financing.

Some other international organisations are only now beginning to try this same 'démarche' with a view to bringing credibility to their work, because it is only when you really find industrialists risking their money that you can be assured that there is faith in the project.

We here can feel extremely assured in terms of the credibility leverage we have obtained from the private sector in Europe, and again from development institutions and regional governments particularly in Belgium, Spain, Italy, and so on. In fact in a few days<sup>(1)</sup> I will be going to the first promotional meeting organised in the framework of the latest cooperation agreement signed by the Emilia Romagna region in Italy.

Currently we have over 21 institutions; regional governments, development institutions and financing institutions that have signed direct bilateral cooperation agreements with the CDI with co-financing facilities to support projects in the ACP countries. That's where I think our greatest substantive achievement can be measured.

► *In terms of enterprise creation, can you quote some statistics? How many firms have you helped to create?*

— You know, of course, that we are not investors and that we do not finance projects. We only help by providing technical assistance to create and strengthen enterprises. In terms of interventions, we have been able to assist some 191 industrial enterprises, to become operational in the ACP States. They involved a total investment of about ECU 193 million, and have resulted in the creation of

more than 6300 jobs. In our overall programme of training and technical assistance, we have given on the job training to over 2000 ACP workers in the last decade.

► *Do you share the view that the CDI has had to limit its ambition, gradually over the years?*

— No. It's not the CDI that has limited its ambition. The terms of reference given to the CDI under the Lomé Convention are extremely ambitious, but the Centre has lacked the means to support these overt



*"It's only when you package investment capital with technical assistance that you get the best results"*

ambitions and it has had to make a selection. But at the same time, there is a tremendous response from the ACP States so that the CDI is flooded with requests which cannot be satisfied. Accordingly there is a measure of disappointment on the part of the ACP countries that the CDI cannot do more.

On the other hand, the CDI has its own frustration that it is not provided with the means to respond to the requests, the openings created by our services and our functions in the ACP countries. We cannot understand why the CDI should remain so marginal in the framework of Lomé after 15 years. The CDI's budget has always remained at 0.5% of the Lomé Convention, and yet it is the principal instrument for seeking to mobilise the industrial sector. This is the fifteenth year. We are still receiving a marginal contribution from Lomé and I think

this needs to be changed. It is not worth maintaining an instrument if you don't have faith in it. If you do have faith in it, then it should be brought into the main-stream of industrial promotion and development in the Lomé Convention.

► *It is no secret that you have always wanted the CDI to have an investment fund to be able to participate directly in the financing of projects. Surely your biggest regret must be the continuing absence of such a fund?*

— Yes. Definitely so because everybody knows that in developing countries—in the ACP countries particularly—the greatest constraint to industrial development is capital, and capital can only be mobilised if it is assured of good management. The CDI provides technical assistance to support good management of industrial capital, but it does not have access to this capital. It has been established that it is only when you package investment capital with technical assistance, that you get the best results.

We have found out, for example, that the European Investment Bank has had many of its lines of credit restored to profitability fortuitously, through the CDI's technical assistance in some of their portfolios. And as a result, there is a natural coming together of our intervention and that of the EIB.

We did actually propose some time ago that this kind of investment support facility be created, not for the CDI to manage but to which it would have access. And whereas it was refused for us, it was in fact established for the Mediterranean countries under the so-called 'Cheysson facility'. The 'Cheysson facility' was an idea that originated from the CDI. It was then applied to the Mediterranean countries but not to the ACPs who have the funding, but not the kind of structure that would make the funding effective.

I still feel very strongly that it is an absolute necessity for the developing economies to find a way of linking technical assistance services with investment funding. Otherwise the whole thing will just become self-destructive. Of course there is also the

(1) Interview conducted on the 20th September 1990.

aspect of seed capital which the CDI has advocated mainly to serve as a kind of priming action for investors; because most promoters in the ACP countries need to have some demonstration of confidence from the agency or institution responsible. If they are going to submit their whole economic proposal and intentions to you, they do not just want advice. They want you to be able to show faith in what you are recommending by putting up some symbolic amount. A seeding fund of this kind will in fact attract collateral funding from financial institutions, from promoters, from foreign investors, and so on.

Without this capacity an organisation like the CDI, seems to me to lack a serious content in its credibility. It is not unusual for similar organisations involved in investment promotion to finance projects. UNIDO finances projects and so do other international organisations. The argument which some people have tried to put across that you cannot combine financing with prospecting is, in my view, flawed because the Commission, the European Investment Bank and many other organisations that are taken seriously have to do both.

But being able to have access to funds is not the same thing as actually managing them. The CDI has never asked to manage the funds, but it wants to have a privileged relation-

ship whereby projects that have viable potential could be presented to those who are holding the funds.

As a matter of fact, this principle was accepted in Lomé III, where under Article 191 § 1(c), it is stated that projects that have been identified and mandated to joint bodies, will be eligible for financing either by the Bank or the Commission. But this particular clause has never been respected because the Bank will not accept the projects sponsored by the CDI, even though they have been formally mandated to the CDI by ACP organs. Similarly, the Commission will not finance projects which come through the CDI, except if they come directly from ACP countries. So I think if the CDI is seen as an instrument of Lomé, it should not be treated as some kind of extraneous body that is not entitled to present projects for financing.

► *You now see a role for the CDI in advising the ACP's on the validity of the technologies used in their projects. Can you elaborate on that?*

— Yes. If you look at the financial situation of many ACP countries, there is a massive commercial debt arising from large scale imports of technology, equipment, services and so on. And I think that one of the problems that could be associated with this is the lack of a facility to vet and check what is being acquired, to

identify alternative options in the market. This is why I think the CDI should really be playing a role. It should not merely be promoting projects, but it should be providing the kind of verification and checking expertise that is necessary to ensure that the technologies the ACPs are acquiring are most suitable to their needs.

► *But don't forget we are talking about 69 countries and an organisation of some 40 staff members only.*

— Yes, but it does not mean the CDI will do this task with its own staff. We have a network of services, antennae, experts, consultants and so on. What we need is a financing framework to enable us to mobilise expertise, to check, select and help to implement the use of some of these technologies.

Of course, one has heard comments to the effect that the CDI is spreading itself too thinly but I think this is misconceived. The CDI answers requests, it does not physically go out to instal machines and so on. And requests can come from anywhere, but once they are valid I think we should be assisting. The area of the technical evaluation I think is most important; as an independent body using public funds the CDI should be able to guarantee that the ACP countries have the best choice in the open market.

► *The CDI had a stated priority in trying to promote the development of agro-industries, given the ACP's food shortages. Has your organisation been able to translate that idea into practice?*

— Well, our policy has been to respond to requests without any discrimination as to sectors, but we have in our promotional effort, tried to draw attention to this priority of the food and agro-allied industry sector and one of the initiatives we took was to organise a meeting in central Africa based on the importance of agro-industry for economic development.

We have also assisted quite a lot of projects actually based on the use of local raw materials. Most of the ACP countries rely on agricultural raw materials and commodities and this



*Mr Akinrele signing a co-financing agreement with Dr E. Manicardi of the Emilia Romagna region in Italy*

has been the primary thrust of emphasising the processing of local raw materials. In our annual reports you will find that the food and agro-industry accounts every year for more than 50% of our total interventions, and I think it will continue to do so, because it is where the ACP countries have the greatest comparative advantage.

► *Isn't it an uphill battle to try to promote joint ventures in Africa, given the general trend of most economies and the political instability caused by the wind of democracy blowing from Eastern Europe?*

— Yes. You are right. It is a major difficulty. But first of all there is a kind of impression that ACP countries should just buy: buy equipment, buy technology, buy the services and so on. So there is a tendency in Europe to exploit that as the first option—to sell. It's only at the secondary level that people want to consider actually taking a stake.

But one must admit that joint ventures, particularly when they involve capital investment, pose certain problems for those who are speculating on the best returns on their investment, because in other economic zones like Latin America or South East Asia, you are likely to get better returns than in Africa or other ACP countries. But on the other hand the market in the ACP countries is rapidly increasing and it is important to have a foothold in this market, particularly as Europe has had a traditional economic and commercial relationship with the countries concerned. It is important that she should try to keep these ties.

There has been a lot of new penetration into Africa from the Far East and the American orbit and unless European industrialists can demonstrate their long term commitment through investment participation, the tendency will be for them to lose ground. So these are the arguments we have always used to promote joint ventures and there is now a new dimension with the competition coming from Eastern Europe.

One of the strongest points of the ACP countries for attracting foreign investment is their low labour cost. You will find that labour costs can be



**Dr Akinrele in discussion with a delegation from the Bahamas**

*"It is a very important breakthrough to encourage manufacturing and industrial processing..."*

as cheap in Eastern Europe as they are in the ACP countries, and this may mean that, with Eastern Europe having the advantage of a more skilled and more disciplined workforce, it may attract more international investment than Africa. We have immediately tried to make ACP countries aware of this by asking them to liberalise further their investment codes and to offer far more generous incentives as a kind of counterweight to the new openings that have been created by Eastern Europe.

► *In what areas do you think your action needs to be furthered?*

— Well, I think the CDI has now created a kind of new niche in the world of international economic and industrial cooperation, by encouraging people to conclude joint ventures where risks are shared. And I think this is an area the CDI must continue to expand, not merely by contracting agreements, but by asking people to take risks in the choice of the technology, the identification of the markets, and the mutual exploitation of the opportunities that will be offered by a new integrated world economy. And I think that the African, the Caribbean and the Pacific countries have to highlight their own areas of comparative and competitive strength.

Lomé IV has outlined the problem of commodities, which must now be

upgraded from mere primary produce to some secondary, or even tertiary levels of processing. It is a very important breakthrough to encourage manufacturing and industrial processing, and I think the CDI must really be geared up to develop and promote this idea because there is no other instrument or institution that can do it. The CDI therefore, has this responsibility and it should be given every support and encouragement.

► *I understand you are retiring from public service. Is it to put into practice the advice you have been giving all these years to ACP businessmen?*

— Well, I don't think that this is really my intention. I am retiring because I have served for more than 30 years in public service and normally, in most countries, 30 years is a good time to consider to try to have a change. Obviously I would have liked to do a few more years in the CDI but given the context in which I have to leave the CDI and Brussels, I think it is the right time to take a break and to try to see whether I can make myself useful in the private sector. I do hope that after some rest, which I think I need, I might be able to find a way of making myself active again in the private sector.

Interview by Amadou TRAORÉ

# Lomé IV : internal financial agreement

by Bernard PETIT(\*)

Representatives at the Council meeting of 17 July adopted the Internal Agreement on the financing and management of Community aid under the fourth ACP-EEC Convention of Lomé.

This is an important document for three reasons:

- Because it determines how the amount earmarked for the 7th EDF is to be broken down between the Member States and lays down the rules for managing financial cooperation for the Community in terms of the programming, examination, approval and utilisation of aid;
- because it adds details on the Community's internal competence to the legal arrangements governing implementation of the Convention;
- Because, given that it is submitted to the national Parliaments for ratification at the same time as the Convention itself, the signing of it means that the process of ratification in the Community can commence.

Without entering into the details of the Agreement (which runs to 36 Articles), four aspects warrant particular attention.

## I. The Member States' financial contributions

The financing of the European Development Fund is still an original, if not a paradoxical aspect of the Community's finance.

Development policy is one of the cornerstones of the Community system and the Lomé Convention is its finest instrument but the EDF is still financed by specific contributions from the Member States rather than from the Community budget. However flexible this solution may be, the intrinsic logic of the Community's development, and of the trends in its external activity in particular, is to have the EDF included in the Community budget. However, the Member States have decided otherwise for

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the duration of the first financial protocol annexed to the Convention. It is likely that this approach will change when the protocol is renewed.

The EDF figure of ECU 10 940 million (ECU 10 800 million for the ACP states and ECU 140 million for the OCT) is made up of the following contributions.

Member States	Amounts (ECU million)	%	Weighting of votes in the EDF Committee
Belgium	433.234	3.96	8
Denmark	227.032	2.075	5
Germany	2840.480	25.964	52
Greece	133.920	1.284	4
Spain	644.999	5.896	13
France	2665.892	24.368	49
Ireland	60.0325	0.549	2
Italy	1417.772	12.96	26
Luxembourg	20.7385	0.19	1
Netherlands	609.120	5.568	12
Portugal	96.140	0.879	3
United Kingdom	1790.640	16.368	33

## II. The Commission and the EIB

Lomé has two financial instruments — the EDF and the EIB's own resources.

They must of course be implemented as coherently as possible, and the Internal Agreement lays down the necessary arrangements. This is particularly important since the Member States have also entrusted the management of part of the EDF resources (risk capital) to the EIB.

The Commission, which has the general political responsibility for ensuring that the Convention is implemented properly, manages the projects and programmes likely to be financed with grants, Stabex transfers, the Sysmin facility and the structural adjustment support funds, with the collaboration of the ACP States.

The Bank manages ordinary loans from its own resources (they carry EDF interest rebates) and risk capital.

In terms of overall volume (i.e. the ACP and OCT resources combined),

the Commission manages ECU 10 090 million (83 % of the total), while the Bank manages ECU 2075 million (17 %).

## III. The Member States in the decision-making process

This is where the biggest changes have taken place.

Since Lomé I, the Member States' main involvement in the decision-making process has been on two committees — the Programming Committee and the EDF Committee.

The Community's cooperation policy has evolved considerably over the years. It was originally intended as a means of financing individual schemes and projects, but it has, to an increasing extent, become a framework of support for policies — sectoral ones today and macro-economic ones tomorrow.

These changes have taken place in conjunction with the advent of support for structural adjustment, a new dimension. In this context, it is not possible for Member States to have positions on the international scene which differ from those decided on in the Community.

More generally, greater European integration now rules out the possibility of the Community's cooperation policy being any different from the bilateral policies of the Member States. Concertation has to be exem-



play and the instruments with which to achieve it have to be defined.

The Committees have not kept up with these changes.

In all but exceptional cases, the only meetings of the Programming Committee have been at the beginning of the period of each Convention. And the EDF Committee, which has discussed individual schemes, has always concentrated on matters of detail. In both of these fora, the real development policy issues arising in the individual countries have been neglected. The procedures, which were too cumbersome to administer, lost their utility and there was less guarantee of Community aid being effective.

Changes were needed to restore the situation. These were geared towards the following four aims:

— putting the Member States in a position to assess how Community aid has evolved between project design and implementation;

— focusing Committee activity on the essential cooperation issues in each country;

— adapting the Committee's functions at the start of the Convention, to adjustment support;

— ensuring proper coordination of the orientations and actions of the Community and its Member States.

The Commission proposals, together with the provisions of the Internal Agreement, reflect these aims. They consist of the following elements:

a) the Programming Committee and the EDF Committee to be merged into a single body, the EDF Committee, on which the Member States are represented in such a way as to ensure proper discussion of development policy;

b) the Committee to have duties in three areas:

— **programming:**

- assessment both of the general framework of Community cooperation with each ACP State and each region and, as far as possible, of the consistency and complementarity of Community aid and Member State aid;

— **implementation:**

- discussion of development policy issues arising from the various projects and programmes in each country;
- discussion of the Community's and the Member States' approach to adjustment support;
- investigation of any changes and adaptations required to indicative programmes and adjustment support;
- examination, at the mid-way point, of multi-component programmes;
- investigation of all general problems relating to the implementation of Community-financed operations (e.g. counterpart funds);

— **the decision-making process:**

- discussion of financing proposals on adjustment support;
- discussion of financing proposals relating to projects and programmes costing more than ECU 10 million;
- discussion (oral or written procedure) of financing proposals relating to projects and programmes costing between ECU 2 million and ECU 10 million;
- regular information about financing decisions taken directly by the Commission, on its own responsibility, for financing proposals costing less than ECU 2 million. This provision, a considerable lightening of the Committee's load, is based on the fact that, under Lomé III, financing proposals for less than ECU 2 million represented 30% of the number of financing proposals, but only 3.8% of total commitments. It means that some adjustments will have to be made in the case of schemes which are particularly important or account for a significant part of the indicative programme.

The voting procedures in the Committee apply to:

- decisions on each State's eligibility for adjustment support resources, other than in cases of automatic eligibility (Article 246(2) of the Convention);
- decisions on financing proposals submitted to the Committee by ordinary or written procedure;
- where applicable, the programming guidelines.

On the question of the qualified majority, the Commission felt that

EDF practices should be harmonised with budget practices so as to give a more Community character to the decisions. In the budget, the votes of only four Member States (i.e. the largest) are insufficient to obtain a qualified majority while it is not possible for a decision to be blocked by only two Member States.

This approach was not adopted for the EDF.

However, the solution enshrined in the Agreement does partially respond to the above suggestion — the Committee will take its decisions by a qualified majority of 133 votes, with at least six Member States voting in favour.

#### IV. The Court of Auditors

The Court has not audited EIB-managed EDF resources in the past. This is at variance with established practice under the Community budget. For operations financed by the budget but managed by the EIB (e.g. in the Mediterranean), the Court does have the right to be involved in audits conducted by the Bank's own supervisory personnel.

This inconsistency was rectified during the discussion on the Internal Agreement, when it was decided that the Court should now be able to take part in local audits of Bank-managed operations. Arrangements for this will be laid down in an exchange of letters between the Bank, the Commission and the Court of Auditors.

This is a fundamental provision, as it will enable the Court to have an overall view of EDF operations, be they run by the Commission or the EIB. It will also mean that, thanks to the Court's annual report, the European Parliament will in full knowledge of the facts, be able to give the Commission a discharge for financial management of the Fund.

\* \* \*

The provisions of the Internal Agreement discussed above are primarily of a technical nature. Given their aim of accelerating the cooperation process and making Community aid more efficient, they undoubtedly have political significance as well. ○

B.P.

# STABEX: from Lomé I to Lomé III – An analysis of its functioning

The ACP-EEC Council of Ministers of 2 June 1989, at the request of the ACP side, entrusted to the Commission the preparation of a report presenting an analysis of the difficulties which confronted the Stabex system for the application years 1980, 1981, 1987 and 1988. The purpose of the report, in addition to a description of the situation, would be to

provide an objective and factual contribution to the resolution of the disagreement between the Community and the ACP side, arising from the latter's insistence that it still has outstanding claims on the Stabex system in relation to those exercises.

The following is a summary of the report as regards the financial problems of the system.

## Lomé I

The Stabex system, introduced for the first time with the First Lomé Convention, was implemented from the 1975 application year onwards. During the five exercises corresponding to the period of operation of that Convention, i.e. the application years 1975-1979, the total resources of the system, initially fixed at ECU 375 million, and subsequently increased to ECU 380 million, were sufficient to cover all the transfer payments which arose (ECU 376.4 million). Furthermore, the replenishment, by certain ACP States, of some ECU 3.5 million (in the form of repayments to the system or offsetting against subsequent transfer rights) gave rise to a surplus of ECU 6 million. It must however be noted that, for the 1978 application year, the eligible transfer requests reached a level of ECU 164 million, which was twice the normal annual instalment (ECU 76.7 million) and even more than the instalment plus the surplus amounts carried over from the previous exercises (ECU 154.8 million). These requests were, however, covered in their entirety by the advanced use of part of the instalment for the final application year of Lomé I.

## Lomé II

The situation changed radically at the beginning of Lomé II. The eligible requests presented for the 1980 and 1981 application years—the two first years covered by that Convention—came to ECU 714.2 million (ECU 261.1 and ECU 453.1 million respectively). As the total resources of the system for the duration of Lomé II were confined to ECU 557 million (initial resources of ECU 550 million, plus an additional ECU 7 million from the second application year), of which only ECU 221.8 million were normally available for 1980 and 1981, its inability to cope with the

requests, despite the carry-over of the surplus from Lomé I and the advanced use of funds from subsequent annual instalments, led to shortfalls of ECU 123.1 million (47.2% of transfer requests) for 1980, and ECU 341 million (75.3% of requests) for 1981. In the case of the latter year, it was possible to reduce the shortfall to ECU 244.5 million, thus allowing 46% of the initial transfer requests to be covered. This was possible due to the reduction of transfer requests by amounts corresponding to the replenishment by offsetting of transfers received under Lomé I (ECU 25.8 million), and thanks to the voluntary effort of the Community, which added ECU 30.7 m to the resources of the system, derived from the repayment of special loans and risk capital from the Yaoundé Conventions and Lomé I, and which allocated ECU 40 million to support special projects. The figure for eligible transfer requests presented for the two application years 1980 and 1981 and remaining unfulfilled as a result of the two exercises was ECU 367.6 million.

As the resources for the remaining three years of Lomé II were more than sufficient to cover all the transfer requests, a surplus of ECU 127.2 million became available and was distributed to those ACP States which were not compensated completely for their export earning losses for 1980 and 1981.

## Lomé III

From the second application year of Lomé III (1986) onwards, the system, the resources of which had been raised to ECU 925 million, —an increase of 66% compared with Lomé II—was faced with very high transfer requests. Thus, for that year, such requests reached ECU 279 million, which was more than during any of the previous

years except 1981. It was possible, however, to reduce the amount of requests to ECU 242.8 million after the implementation of the agreement of ACP States to contribute to the replenishment of the resources of the system.

The Stabex resources for this exercise, which included, in addition to the annual instalment, the amounts replenished by the ACP States and, especially, a carry-over from the previous year were, however, sufficient to cover the total amount of the requests, even without calling on part of the following year's instalment.

Subsequently, the requests soared to even higher levels: ECU 803.4 million and ECU 761.4 million, respectively, for 1987 and 1988. In other words, for these two exercises, they amounted to ECU 1 564.8 million, or 68.2% more than the total Stabex resources for the whole of Lomé III. Thus, the excess of requests over resources available was, relatively, even worse than that for the years 1980-1981<sup>(1)</sup>.

### Results: 1975-1988

The 400 or so transfer requests submitted to the system since the first application year—during fourteen annual exercises—amounted to ECU 3 270.9 million, or almost double the funds provided by the Contracting Parties for the three Lomé Conventions (ECU 1 723.3 million).

Flexibility in the management of the resources allocated to the system for five years is, of course, one of the characteristics of Stabex. This flexibility allowed the system, over the fourteen annual exercises, to cover eligible requests in their entirety for a total of ten years. The transfers made for those years came to ECU 991 million, of which ECU 37.5 million did not give

(1) 28.2% more than the Lomé II resources.

rise to payments but were covered by replenishments.

### The origins of the problems ascribed to Stabex

On 19 May 1983, several months after the completion of the 1981 exercise, the ACP-EEC Council of Ministers held a special session dedicated to Stabex and, in particular, its financial aspects. In the context of the preparation of this session, the Commission undertook an analysis of the causes of the increased pressures on the system.

These new pressures, evaluated in comparison with the situation which existed under Lomé I, were ascribed in particular to three factors:

- relaxation, between Lomé I and Lomé II, of the conditions for granting transfers,
- sharp falls in the prices of certain primary commodities covered by the system, and "hard landings" in the case of products for which the prices had increased spectacularly during the previous years,
- recession in the Community Member States, which led to a certain contraction of demand.

The conclusions arrived at in 1983 were not, however, confined to these factors, which related essentially to the prevailing economic circumstances. Supply-related problems affecting Stabex products in many ACP States were also identified as elements likely to accentuate the pressures on the system.

A detailed examination of the transfer requests for the 1980 and 1981 application years allowed the identification of the new provisions introduced in Stabex under Lomé II which led to an increase in requests. These new provisions, the impact on the system of which was estimated at some ECU 70 million, were:

- the introduction of new products,
- the reduction of the fluctuation and dependence thresholds,
- the automatic increase of all transfers by 1%
- the possibility of "globalisation" which, in certain cases, allowed the constraints of the thresholds to be overcome,
- the possibility of extending Stabex cover to intra-ACP trade, and the extension of all destinations cover to certain new ACP States.

The fall in the prices of a whole range of products covered by Stabex was identified as by far the most important cause of the increase in the level of requests. Before returning to this matter later, it may just be noted that coffee and cocoa price reductions were mainly responsible for the increases in requests.

The effect of the reduction of demand in the Community on ACP States' exports, something much more difficult to identify and measure, was limited, though by no means negligible.

In reality, the reductions of ACP export earnings were related more often to problems originating in the countries themselves, either from the structural weakness of their economies, or their exposure to natural disasters. In relation in particular to the insufficiency of the supply capacity of the ACP States, the Commission, in 1983 had already, drawn attention to "the deterioration of the competitive position of the ACP States for certain primary products covered by the system, a deterioration which explains in large measure the poor export performance recorded by a large number of these countries".

### After fourteen years of Stabex - a new assessment

#### Causes of transfer requests

In Stabex, transfer amounts are calculated on the basis of export earnings. However, it is possible to calculate, in relation to reductions of earnings, those due respectively to reductions of quantities exported or to reductions of unit-values, that is to say, price reductions.

The breakdown of transfer bases by reference to the factors that caused them indicates that, every time the prices of the principal products exported by the ACP States—in first rank, coffee and cocoa, but also all the oil products, as well as cotton and tea—suffered substantial reductions, these reductions were translated into transfer requests of sufficient magnitude to cause difficulties for the system. This is exactly what happened in 1980-1981 (for coffee and cocoa) and, to a far greater extent in 1987-1988 (for all the products referred to).

Even when the statistical analysis indicates that the reductions of export earnings are attributable to reductions in quantities exported, in many cases they are merely a consequence of price

## 1989 Transfers

### Demand exceeds funds available

Stabex funds will be insufficient to meet all applications, even those clearly founded. According to the Commission's estimates, justifiable transfers for the 1989 year of application amount to some ECU 495 m. After applying various provisions in force, this sum is reduced to ECU 413 m. The funds available under the Stabex system for 1989 amount to only ECU 141 m.

In order to cover half the transfers due (206 m), the Commission has put forward a proposal—now being examined by the Member States—relating to an additional ECU 80 m or so (EDF interest, unused Sysmin funds, etc.) The product which has led to the highest loss of earnings is coffee: some ECU 300 m worth of compensation for lost earnings has been requested, the countries most affected being Côte d'Ivoire (117.4 m), Cameroon (59 m), Burundi (38 m) and Rwanda (37 m). The second highest loss-maker has been cocoa (the biggest loser being Cameroon-66 m), followed by wood, bananas and groundnuts. By country, the biggest losses have been sustained by Côte d'Ivoire, Cameroon, Burundi, Rwanda, Central African Republic and Togo.

reductions: directly, when the reduced quantities result from limitations arising from international agreements aimed at stabilising primary commodity prices, as was the case with coffee in 1988; indirectly, when reduced prices weaken the export sectors of the ACP States leading to reductions in the level of production, marketing or just exports; indirectly also when high prices during a relatively long period lead ACP States to increase considerably their exports, resulting automatically in losses of earnings when prices return to lower levels.

#### Markets and the Stabex transfer calculation mechanism

This last point leads to an important conclusion in relation to the mechanism whereby developments in the markets

are translated into export earnings losses. Despite the dampening effect of the moving average mechanism (reference level) calculated over a period of four years (reference period), the earnings losses of exporting ACP States have, in many cases, been greatly increased by the fact that, during the years prior to the years of earnings losses, the prices, the quantities exported, or both, had experienced increases which were both extreme and temporary. Thus, transfer requests were often the reflection not just of perfectly legitimate requests for export revenue stability, but also, and far more difficult to justify, requests for the maintenance of advantages acquired during the course of exceptional price rises.

### The place of Stabex in the system for guaranteeing exporting countries' revenues – an overview

The reason for highlighting the developments in the markets of primary agricultural products as the source of the financial problems of Stabex has been to emphasise that such developments should be accepted as being of exceptional severity. Consequently, it is understandable that a system which is not, and never was, intended on its own to offer a solution to the problem of export earnings instability, could not satisfy all the demands made on it.

At this point it is worth recalling in what context Stabex was created and with what intention. When it was

created, it was conceived of as the Community's response to the quest by producers and exporters of primary products for stable and predictable development conditions through export earnings stability. The system was, along with international commodity agreements, to be part of a complete package of measures, all, in the final analysis, with the same objective—the stabilisation of the revenues derived by primary commodity producers from their exports.

The primary commodity agreements were probably the most important part of this package of measures. They were required, through their influence on supply (by way of buffer stocks or the regulation of exports and, more rarely, production), to contribute to the stability of prices for the products covered—this being the condition for the stability of earnings. The role of Stabex was to be more modest—the system was required to supplement the agreements in specific cases: either for products for which there were no agreements, or in the case of a breakdown, usually temporary, of an agreement, or in cases where the losses of export earnings did not arise from price reductions. Clearly, Stabex could not be completely effective in a situation where the principal element of the package in which it participated failed to carry out its objectives satisfactorily. In effect, it is the very failure of the two principal international agreements relating to products covered by the system—those for coffee and

cocoa—to fulfil their role which is at the root of the problems of Stabex. Firstly, when they were unable to avoid the soaring prices of the mid 1970s, and, subsequently, when they were unable to prevent the collapse of those same prices, the consequence of which was the “hard landing” at the root of the crisis of the years 1980-1981. The result of these failures was that Stabex was called on to provide solutions for situations which were never anticipated.

### Financial resources and commitments of Stabex

The other fundamental limitation of Stabex arises from the institutional framework in which it operates: Stabex is an integral part of the Lomé Convention, which signifies, inter alia, that its financial resources are limited in the context of the European Development Fund. The amount allocated to Stabex is a fixed sum intended to cover all the commitments of the system.

It is worth recalling here the conditions under which this amount has been determined. Except in the First Lomé Convention, for which the needs of the system were evaluated using statistical techniques, the Stabex allocations for the subsequent 5th and 6th EDFs, were based on the percentage that the allocation represented in the 4th EDF (Lomé I). The Contracting Parties thus established as a rule something which was a mere coincidence and which risked not being sustained in the future. ○

### Stabex financial resources and their utilisation Years of application 1975-1988

	Amounts in ecus	% of				Amounts in ecus	% of	
		Total	(A)	(B)			Total	(B)
<i>Resources</i>					<i>Utilisation (transfers allocated)</i>			
— Sums allocated <sup>(1)</sup>	1 723 250 000	75.8		85.0	— Payments	2 027 390 694	89.2	100
— Supplementary resources	335 019 317	14.7			— in the form of grants	1 020 888 225	44.9	50.4
— supplementary resources added to transferable funds <sup>(2)</sup>	295 019 317	13.0		14.6	— in the form of loans	1 006 502 469	44.3	49.6
— grants for projects <sup>(3)</sup>	40 000 000	1.8			— Grants for projects <sup>(3)</sup>	40 000 000	1.8	
— Replenishment	214 361 373	9.4	100		— Compensations	205 239 996	9.0	
— by repayment	9 121 377	0.4	4.5	0.4				
— by compensation	205 239 996	9.0	95.7					
	2 272 630 690	100				2 272 630 690	100	

(A) Amount of replenishments.

(B) Amount of payments (in the form of transfers).

(1) Initial and supplementary allocations for Lomé I and Lomé II, annual instalments 1985-1988, 25% of the 1989 instalment.

(2) Made available to the system for the years 1981, 1987 and 1988, Lomé III Stabex interest funds.

(3) For the year of application 1981.

## Lomé I

	Amounts in ecus	% of total		Amounts in ecus	% of		
					total	(A)	(B)
<i>Resources</i>			<i>Utilisation</i>				
— Initial allocation	375 000 000	97.8	— Transfers allocated	377 495 708	98.4	100	100
— Supplementary allocation <sup>(1)</sup>	5 000 000	1.3	— Payments	376 356 192	98.1	99.7	67.7
— Amounts replenished	3 471 613	0.9	— in the form of grants	254 656 204	66.4	67.5	32.3
— by repayment <sup>(2)</sup>	2 332 097		— in the form of loans	121 699 988	31.7	31.7	
— by compensation <sup>(3)</sup>	1 139 516		— Compensation	1 139 516	0.3	0.3	
			— Balance <sup>(4)</sup>	5 975 905	1.6		
	383 471 613	100		383 471 613	100		

(A) Amounts of transfers allocated. (B) Amounts of payments (in the form of transfers).

(1) From the 1977 application year, to cover the costs arising from the accession to the Convention of three States — Cape Verde, Papua-New Guinea and Sao Tome &amp; Principe.

(2) Fiji — ECU 1 868 539, Cameroon — ECU 463 558.

(3) With the transfer allocated to Madagascar for the 1979 application year.

(4) Carried forward to the Lomé II Stabex resources.

## Lomé II

	Amounts in ecus	% of total		Amounts in ecus	% of		
					total	(A)	(B)
<i>Resources</i>			<i>Utilisation</i>				
— Lomé I balance	5 975 905	0.9	— Transfers allocated	659 516 824	96.2		
— Initial allocation	550 000 000	80.3	— Payments	568 026 276	82.9	100	
— Supplementary allocation <sup>(1)</sup>	7 000 000	1.0	— in the form of grants	241 426 681	35.2	42.5	
— Supplementary resources <sup>(2)</sup>	70 753 710	10.3	— in the form of loans	326 599 595	47.7	57.5	
— Repayment of special loans and risk capital <sup>(3)</sup>	30 753 710	4.5	— Grants for projects <sup>(4)</sup>	40 000 000	5.8		
— Grants for projects <sup>(4)</sup>	40 000 000	5.8	— Compensation	51 490 548	7.5		
— Amounts replenished	51 490 548	7.5	— Balance <sup>(7)</sup>	25 703 339	3.8		
— Lomé I transfers <sup>(5)</sup>	25 787 209	3.8					
— Lomé II transfers <sup>(6)</sup>	25 703 339	3.8					
	685 220 163	100		685 220 163	100		

(A) Amounts of transfers allocated. (B) Amounts of payments (in the form of transfers).

(1) From the 1981 application year, to cover the costs arising from the accession to the Convention of Zimbabwe.

(2) Made available to the system for the year of application 1981.

(3) Repayment by the ACP States of special loans and risk capital of Yaoundé and Lomé I Conventions.

(4) Grants for projects to be implemented rapidly, calculated on the basis of the excess of transfers allocated over resources available.

(5) By compensation with transfers allocated for year of application 1981 (Cameroon — ECU 3 601 423, Côte d'Ivoire — ECU 15 000 000, Fiji — ECU 426 435, Ghana — ECU 5 176 408, Madagascar — ECU 1 762 943).

(6) By compensation with the transfer allocated to Senegal by virtue of the distribution of the Lomé II balance following the year of application 1984 exercise.

(7) Carried forward to the Lomé III Stabex resources.

## Lomé III

	Amounts in ecus	% of total		Amounts in ecus	% of		
					total	(A)	(B)
<i>Resources</i>			<i>Utilisation</i>				
— Lomé II balance	25 703 339	1.9	— Transfers allocated for years of application 1985-1988	1 235 618 158	89.9	100	
— Allocation	925 000 000	67.3	— Payments	1 083 008 226	78.8	87.6	100
— Supplementary resources <sup>(1)</sup>	245 000 000	17.8	— in the form of grants	524 805 340	38.2	42.5	48.5
— Balance and interest from the Lomé I and II Conventions	110 000 000	8.0	— in the form of loans	558 202 886	40.6	45.2	51.5
— Lomé I balance/interest	17 159 688	1.2	— Funds available year of application 1989	138 750 000	10.1		
— Lomé II interest	54 434 155	4.0					
— Lomé II balance	38 406 157	2.8					
— Lomé III balance and programmable reserves	135 000 000	9.8					
— national funds	25 000 000	1.8					
— regional funds	15 000 000	1.1					
— EIB loan interest subsidy	40 000 000	2.9					
— Sysmin	55 000 000	4.0					
— Amounts replenished <sup>(2)</sup>	159 399 212	11.6					
— by repayment <sup>(3)</sup>	6 789 280	0.5					
— by compensation <sup>(4)</sup>	152 609 932	11.1					
— Stabex fund interest 1.1.1986-15.7.1989	19 265 607	1.4					
	1 374 368 158	100		1 374 368 158	100		

(A) Amounts of transfers allocated. (B) Amounts of payments (in the form of transfers).

(1) Made available to the system for the years of application 1987 and 1988.

(2) Lomé III transfers.

(3) PNG — ECU 5 229 547, Madagascar — ECU 2 108 793 (repayment in local currency).

(4) With the transfers allocated for years of application 1986 (Côte d'Ivoire — ECU 36 363 934) and 1987 (Cameroon — ECU 17 999 683, Côte d'Ivoire — ECU 17 805 107, Kenya — ECU 23 195 412, Madagascar — ECU 2 108 793, PNG — ECU 32 388 671, Senegal — ECU 22 748 332).

# Quantifying structural adjustment at the grassroots

The 'Braudel' measure of small-scale entrepreneur purchasing power

by John CROSTHWAITE (\*)

Regardless of its form, be it short-term fiscal stabilisation measures or medium-term (production-focused) economic reforms, the process known as structural adjustment is associated with general price turmoil. This turbulence causes confusion and uncertainty for farmers and small artisans in general, which in turn distorts and delays commercial decision-making. Under such circumstances, farm households need a means of following relative price changes — of knowing where they stand. This is particularly the case during the market liberalisation phase of a reform programme, when prices are allowed to find market-clearing levels.

The 'Braudel' measure of entrepreneur purchasing power is a vector which expresses farmgate product prices in terms of basic consumer good and/or agricultural inputs. Using perceived prices, it is straightforward to derive, rapid in availability and easy to comprehend and to verify. It retains diversity and hence caters for individual utilities, including gender differences. It can be used as a reference grid for time-series and regional comparisons. Not subject to the time lags of real-term price indices, the 'Braudel' procedure can provide same day information, enabling farm operators to be proactive (to anticipate) in the face of economic change. Simple and economic to set up and operate, it is proposed as a means for farmers, farmers' groups and NGOs to participate directly in the structural adjustment process.

For the policy analyst, the 'Braudel' measure can represent a means of identifying farmer price incentive thresholds. Used in conjunction with other indicators such as income, it can help to quantify the corresponding social dislocation caused by farmer-remunerative prices on the consumer. In short, it can contribute

in an objective way to providing a social safety net to palliate the initial effects of economic reforms.

In this description the 'Braudel' measure is presented against the background of structural adjustment in Madagascar. It is shown how the procedure can provide a beacon in the midst of the turbulence of reform. From this it is proposed as a practical measurement tool for the participants in structural adjustment elsewhere.

## 'Braudel' measure of purchasing power

The procedure is named, with great diffidence, after the French historian Fernand Braudel (1902-85). Braudel has been adopted as the eponym for three reasons; first, it was he who so vividly demonstrated how the 'unspectacular structures and recurrent patterns of life' provide a 'reference grid' for examining human decisions and behaviour. Secondly, Braudel shows the enormous power of the market place, including the 'thick layer' of the semi-subsistence and informal sectors, which interact to make up the productive mechanism of capitalism, in all its 'ruses'. Thirdly, by analysing trends in prices, often of routine, everyday consumption items (*le quotidien*) from innumerable sources and by presenting them in terms of changes in purchasing power, he was able to pass beyond nominal prices and thus make his 'reference grid' relative to both time (decades and even centuries), and geographic areas (large or small — those for which data were available).

## What it seeks to do

Building from Adam Smith, market information which provides the small-scale farmer with an understanding of the real worth of farmgate prices (his/her labour) is seen as the overriding determinant in farm business decision making. To this end, the 'Braudel' measure interprets agricultural product prices in real terms in

the farm household's local market environment. The information message is derived from the data, which in turn are selected to reflect the realities of the village. The measure relies for its functioning on the inherent resourcefulness, ability and business acumen of the smallholders and artisans it is designed primarily to serve. The users are seen as both men and women.

The 'Braudel' measure avoids the grouping of data as occurs in a real-term price index. By retaining variety, the system seeks to ensure that individual utilities (preferences) may be exercised. It is thought that the fact that the technique uses ungrouped data makes it particularly amenable to accommodating differences in spending patterns by gender,

*The object is to communicate information to the farmer, (either directly or through their representatives in the form of community groupings), on the significance, in real terms, of the evolution of prevailing farmgate product prices. The kinds of question which the 'Braudel' measure seeks to help resolve are those in the farmer's mind when faced with the confusion of economic change:*

- is it worth growing for market?
- is the (farm product) price right?
- what crops/activities offer the best real return?
- is it worthwhile to use bought-in inputs such as fertilizer or labour to increase yields?

The policy analyst and the administrator may likewise have access to the 'Braudel' information. The dynamic effect of such sharing of information has been emphasised in an axiom by M. D. Davis in his book *Game Theory*, 'The extent to which players communicate has a profound effect on the outcome of a game'.

## How it works

The 'Braudel' measure of purchasing power compares, for example, the number of kilos of sugar that can be

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bought with the revenue from the ex-farm sale of (say) 100 kilos of (rice) paddy today, with the number of kilos of sugar that could be bought on the same day last week, last month (or last year), again from the sale of 100 kilos of paddy, and so on, for as many time reference points and/or geographic areas as have been entered in the system. Expressed in a single vector of purchasing power, two prices can move. These are the agricultural product being followed and that of a selected basic consumption item or farm input. The prices are those *perceived* by the farm operator.

The procedure takes the following form:

Braudel measure =

$$= \frac{\text{Ex-farm price of product per unit}}{\text{Local (perceived) cost of a basic consumption item or farm input per unit}}$$

Using the rice-growing Antananarivo plain region of Madagascar on 21 July 1987 as an example:

Braudel measure =

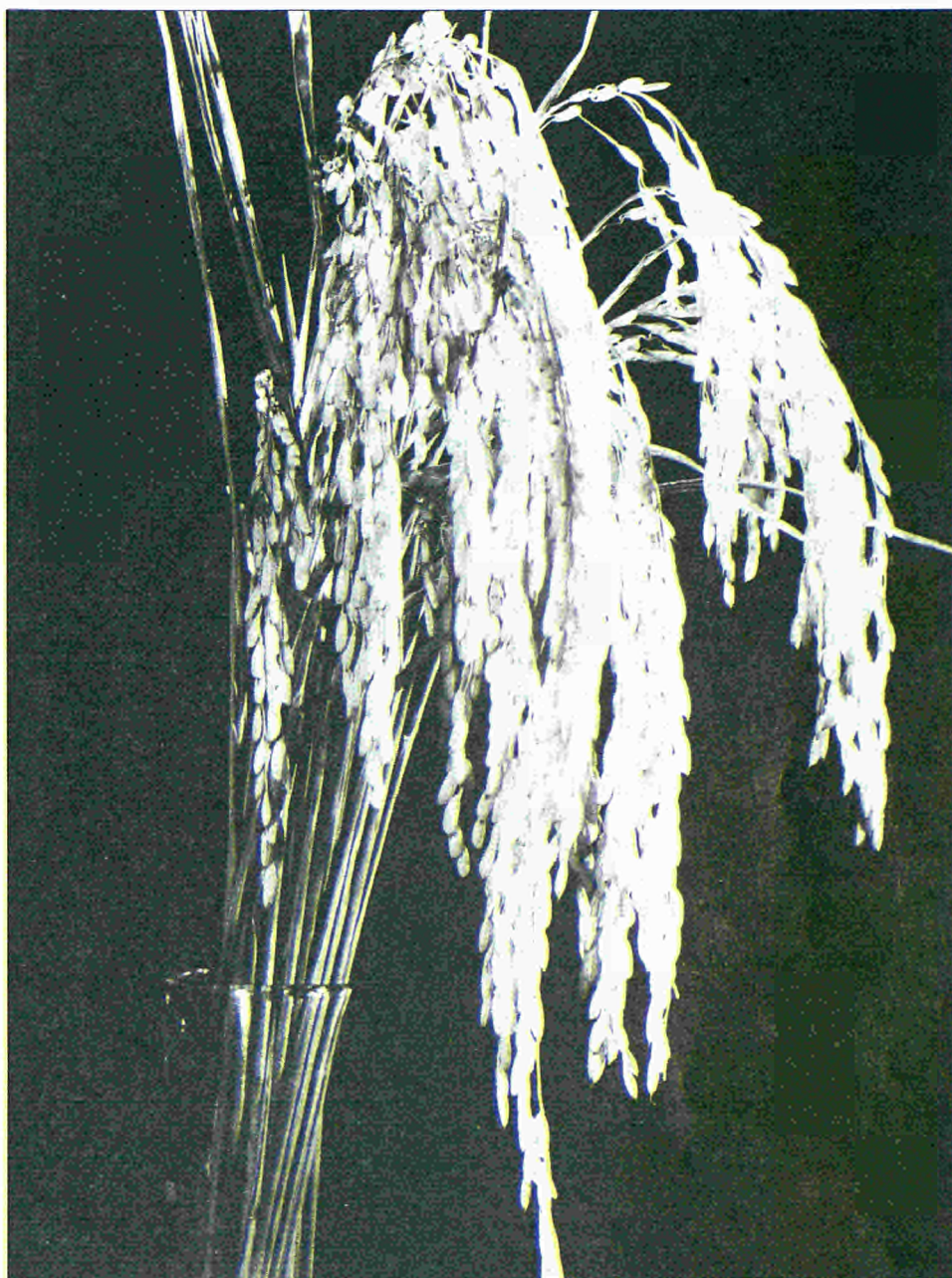
$$= \frac{12\,000 \text{ Malagasy francs per } 100 \text{ kg of paddy}}{800 \text{ Malagasy francs per kg of sugar}} = 15 \text{ kg of sugar.}$$

Or again, in this case referring to a fairly common farm input:

Braudel measure =

$$= \frac{12\,000 \text{ Malagasy francs per } 100 \text{ kg of paddy}}{250 \text{ fmg per kg of N-P-K fertilizer}} = 48 \text{ kg of N-P-K}$$

Before going any further, let it be made clear that the 'Braudel' measure is not a new notion. Far from it: the straightforward procedure of expressing the value of a particular item or service in terms of another, either directly or through the medium of money (or time as a surrogate), goes back to the beginning of mercantile activity. While today it is most commonly encountered as a means of expressing the purchasing power of wages or executive allowances, it is also frequently used to demonstrate changes in the value of revenues from the sale of commodities — usually export ones. Only occasionally has it been applied in a systematic manner to food products.



Rice, a basic crop in Madagascar

*"The structural adjustment programme included liberalisation of prices of Madagascar's staple food"*

The tool then is already fashioned. It is the *application context*, the turmoil of macroeconomic reform, combined with the emphasis on *communication* of the message to the small-scale entrepreneurs immediately concerned, that are thought to be singular. Hence the adoption of a particular appellation — the 'Braudel' measure.

Passing from principles, the following sections look at the use of the 'Braudel' measure in Madagascar. It is intended to demonstrate how the technique is concerned with the

practical aspects, the 'nuts and bolts' of structural economic reform.

### Madagascar: the background to reform

To give meaning to the demonstration that follows, it is necessary to trace very briefly Madagascar's recent economic past — though it is not intended to discuss in any detail the complex process of economic reform underway. (For a description of the overall structural adjustment programme in Madagascar the reader is referred to *The Courier*, No. 111, Sep-

tember-October 1988. Another source is Giles Duruflé, 'Structural Disequilibrium and Adjustment in Madagascar'.

Independent in 1960, Madagascar inherited an 'économie de traite' (trading economy) centred on the production and export of primary resources. In 1972 the Government chose an alternative course. This choice, which was reinforced in 1975, had at its core a strategy of internal accumulation and industrialisation aimed at meeting a number of social objectives. The principle measures for achieving these goals were nationalisations, restrictions on foreign exchange (including withdrawal from the franc zone) and priority to industrialisation by import-substitution. Both Government and the nationalised industries borrowed heavily in a policy of investments 'à outrance'. By 1979, internal inefficiencies, coupled with the worldwide recession of the decade, had plunged the economy into a deep crisis. After initial contacts with the IMF in 1980, the Government in 1981, entered into a comprehensive programme of stabilisation and production-directed reform measures.

The structural adjustment programme (SAP) included liberalisation of prices of Madagascar's staple food, rice. The retail price of rice was freed in June 1983 with limited liberalisation of paddy in 1985. The partial liberalisation engendered heavy speculation on the free rice market. Prices reached FMG 800/kg as compared with an official price of FMG 265/kg — the minimum wage at the time was FMG 22 000/month (FMG 730/day).

Complete liberalisation of the paddy market in 1986 provoked a surge in producer prices—from FMG 83/kg to FMG 250/kg. Intervention in November by means of the sale of imported rice buffer stocks reduced the retail price to FMG 450/kg. Continued rice imports in 1987, mainly in the form of food aid, combined with substantial carry-over stocks, led to a further reduction in the retail rice price to FMG 330/kg at the beginning of the main harvest season in July. The corresponding paddy price was around FMG 120/kg—a far cry from the market-derived price the year before.

This story is depicted in Table 1, where the 'Braudel' measure is applied to follow the purchasing power of the farmer on the rice-growing plain of Antananarivo for selected years over the period 1975 to 1987 (July). Also given are more orthodox means of measuring and communicating price changes in real terms: 1) Nominal Paddy Price Index, 2) Consumer Price Index (CPI) for the capital Antananarivo

and 3) Real-Term Paddy Index (RTPI). This latter is obtained from dividing the nominal paddy price index by the CPI and multiplying by 100. The formula for deriving the 'Braudel' purchasing-power readings has been described previously.

The concern here is with the use of the 'Braudel' measure of purchasing power in field conditions. The object is to demonstrate the procedure's versatility and how to develop and apply

**Table 1: Nominal paddy price index, consumer price index, real-term paddy price index and 'Braudel' measure of rice grower purchasing power, Antananarivo plain, Madagascar 1975-1987**

Time point	1975	1980	1985	1986 July	1987 21 July
Remarks		A "good" year for farmer purchasing power	A "bad" year for farmer purchasing power	Free market in paddy as of July '86	Rice retail market price at fmg 330/kg
Paddy price	30 fmg/kg	43 fmg/kg	83 fmg/kg	250 fmg/kg	120 fmg/kg
Indices: (1975 = 100)					
Nominal Paddy	100	143	277	833	400
CPI (a)	100	156	388	445	470
Real-term paddy (b)	100	92	71	187	85
Nominal prices of selected basic goods (c)					
Rice (kg)	65 fmg	60 fmg	288 fmg	488 fmg	330 fmg
Sugar (kg)	75 fmg	122 fmg	412 fmg	420 fmg	800 fmg
Cook. oil (L)	245 fmg	285 fmg	885 fmg	2400 fmg	2100 fmg
Beef (kg)	249 fmg	384 fmg	882 fmg	956 fmg	1000 fmg
Rum (L)	573 fmg	767 fmg	2200 fmg	2200 fmg	3000 fmg
Soap (kg)	240 fmg	245 fmg	675 fmg	950 fmg	2000 fmg
The 'Braudel' measure—the gross revenue to the farmer from the sale of (say) 100 kg of paddy—expressed in terms of: (d)					
(Number of units)					
Rice (kg)	46	72	29	51	36
Sugar (kg)	41	35	20	60	15
Cook. oil (L)	12	15	9	10	6
Beef (kg)	12	11	9	26	12
Rum (L)	5	6	4	11	4
Soap (kg)	13	18	12	26	6
Notes: fmg (FMG) = Malagasy Franc					
(a) Consumer Price Index (CPI), 1972 = 100, 1975 = 142.					
(b) Nominal Paddy Price Index divided by CPI × 100.					
(c) For reasons of space, this is a very much reduced list — the original work covers some 25 products and farm inputs.					
(d) For the period 1975-1986, the consumer product price data are from the Government's surveys undertaken to derive the CPI. Consumer prices for the period July 1986 — July 1987 are field-collected data and include prices from the black market.					
Source: Crosthwaite, J.M., <i>The Farmer and the Turmoil of Economic Change</i> , 1990, Annex 1.					



it as a practical working tool — not to analyse the results as they relate to the economy as a whole. The remaining sections look briefly at some of the operational aspects of the technique.

### Simplicity and transparency

The 'Braudel' values given in Table 1 permit the advantageous year for farmer returns, 1986, to be pinpointed immediately and in terms that people with little education can understand. By reference to the corresponding nominal price data, these values can be checked, using simple arithmetic.

### Individual and gender variations in utility

The 'Braudel' measure of small-scale entrepreneur purchasing power permits individual perceptions of utility to be accommodated. Table 2 tries to bring out this point by presenting the readings for some deliberately disparate consumption items and a farm input, N-P-K fertilizer.

The 'Braudel' measure is thus a message board, for people to read according to their particular (and ever-changing) values.

### Perceived prices

Table 2 also helps to show that a significant operational advantage of the 'Braudel' procedure is its flexibility in that it uses perceived prices — those the farmer encounters (and anticipates) in the village. This feature is particularly relevant when market forces are being introduced under an economic reform programme. The 'Braudel' measure can accept controlled, subsidised, black (or parallel), and free market prices. Real-term price indices are incapable of this degree of responsiveness.

### Regional comparisons

In Table 3, the 'Braudel' purchasing-power relationship is applied using contemporary data from the Antananarivo plain and another area of Madagascar. The region selected for comparison is Bezaha, a small town in the centre of a rice region in the south west of Madagascar, approximately 800 kms from the capi-

**Table 2: 'Braudel' measure of rice grower purchasing power, Antananarivo plain, Madagascar, demonstration of variety**

	1966	1975	1980	1985	1986	1987
Sugar (kg)	20	41	35	20	60	15 (*)
Beef (kg)	9	12	11	9	26	12
Condensed Milk (tin)	—	27	31	21	57	19
Rum (litre)	—	5	6	4	11	4
Chewing tobacco	130	300	430	332	1000	150 (*)
Household Soap (kg)	12	13	18	13	26 (*)	6 (*)
N-P-K (kg)	—	—	70	46	90	48

(\*) Black market — not sold at official price.

Source: Table 1.

tal. The economic pole and main market and supply point for Bezaha is the port of Tolira, from which it is separated by some 110 kms of poor roads. In short, Bezaha is subject to the 'tyranny' of distance and transport costs with respect to the main population centres, and serves well as a basis for comparison with the densely-peopled region of Antananarivo.

The surveys given in Table 3 were both conducted in July 1986, when the market for paddy in Madagascar was completely free. While the differences in the data for the two regions can be explained, the object of the present exercise is methodological, to demonstrate the suitability of the 'Braudel' technique for local, regional and country comparisons.

### Rapidity of the procedure

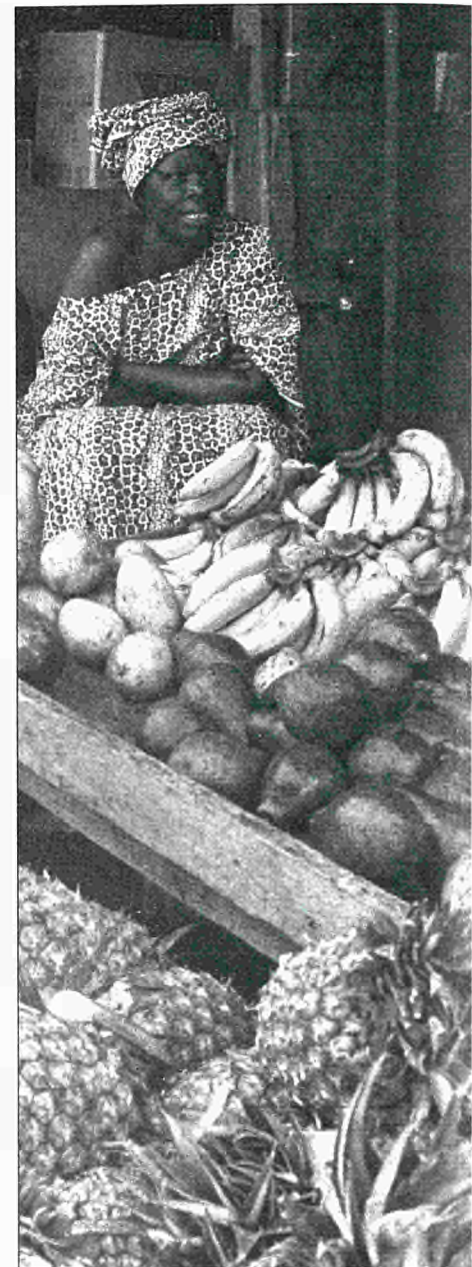
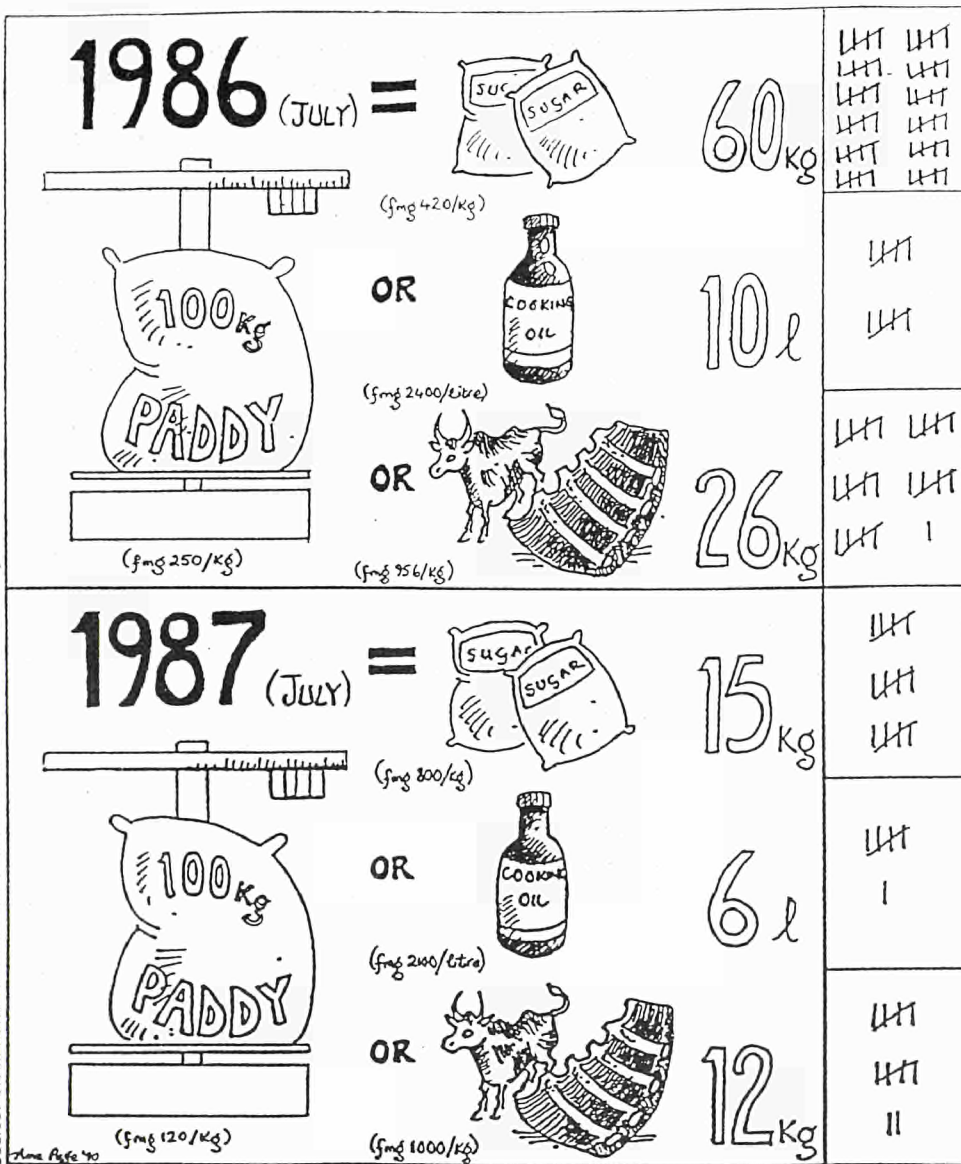
On the Antananarivo plain, working in the rice-growing, 'peri-urban' area of the capital, it was possible, with a bit of practice, for three people with no more than primary education in the formal sense, to collect the prices of some 25 consumption items in the Antananarivo area in the space of a few hours. Using a simple computer spreadsheet, the 'Braudel' purchasing-power data were available the next morning. The area in question had a population of over a million people. (That the procedure is straight forward and cheap to instal and operate suggests that it could function well under the auspices of a farmer group or a non-governmental organisation).

**Table 3: Situation in July 1986**

Region		Bezaha		Antananarivo plain	
Paddy price (fmg/100 kg)		13 000 fmg		25 000 fmg	
Product	Measure unit	Price/unit	Units/100 kg paddy	Price/unit	Units/100 kg paddy
Rice or Sugar	"kapaoka" (*)	75 fmg	173	486 fmg	51
Sugar	"kapaoka" (*)	200 fmg	65	420 fmg	60
Coarse Salt	"kapaoka" (*)	40 fmg	325	151 fmg	166
Cooking Oil	litre	2000 fmg	7	2400 fmg	10
H' hold soap	250 gr	400 fmg	33	950 fmg	26
Cigarettes	pqt local	300 fmg	43	260 fmg	96
Chew. tob.	pqt 9 gr	30 fmg	430	25 fmg	1000
Paraffin	litre	300 fmg	43	160 fmg	156
Flannel	metre	830 fmg	16	780 fmg	32

(\*) Ubiquitous condensed milk tin used in Madagascar as a measure — 1 kg of rice = 3.5 "kapaoka", 1 kg of sugar or salt = 3 "kapaoka".

Source: Crostawaite J.M. The Farmer and The Turmoil of Economic Change, 1990



“Braudel” measure applied to rice growers: Antananarivo plain, Madagascar July 1986 and July 1987

**A potential aid to women entrepreneurs**

Women, as the World Bank points out, are perhaps the most important, and the most neglected rural people. Over the four years of data collection in Madagascar, it was observed that women in general, at all levels of educational attainment, reacted noticeably more quickly and enthusiastically to the ‘Braudel’ measure than did men. Women seemed to see its significance straight away.

**Communicating the ‘Braudel’ purchasing power information**

Communicating accounting and management information to people with little or no formal education is the domain of specialists. It shall only be touched on here.

Figure 1 is an attempt to bridge the literacy gap using symbols. It is no more than a graphical suggestion, a first approach. It is based on ‘western’ concepts and should be adapted to particular situations. It also should be mentioned that in the case example

given above, Madagascar, there is a generally higher level of literacy than in many other low income countries. The object of the present exercise is purely illustrative.

Essentially, there are three points to be made. First, illiteracy need not be a bar to the communication of quantified information; second, nor need language, regardless of the level of competence in that language. Third exposure to the ‘Braudel’ message system may be expected to have its own pedagogical effect. ○

J.C



## “Africa’s primary sector problems: towards a solution”

Former Australian Prime Minister Malcolm Fraser chaired the group of independent experts—including various ACP personalities—recently set up at the request of the Secretary-General of the UN to find answers to Africa’s primary sector problems. Its report <sup>(1)</sup> claims that the continent has “enormous economic potential”, in spite of the fact that exports of most of the important products which Africa sells on the international market are declining or stagnating (see graph).

Changing and expanding the African economies means reviving the primary sector, which has genuine but long-neglected development potential, and the report recommends taking measures at three different levels to do this.

First the report maintains that African governments have to “change their behaviour”, in particular by “putting greater stress on the primary sector in planning, drawing up their budgets and devising their policies”. This means “personal involvement” on the part of the Heads of government and proper application of the changes at all levels of decision-making. Methods of organisation have to be altered too, by improving commodity marketing, for example, and encouraging diversification (“developing new primary products”, processing and launching a “labour-intensive manufacturing industry”).

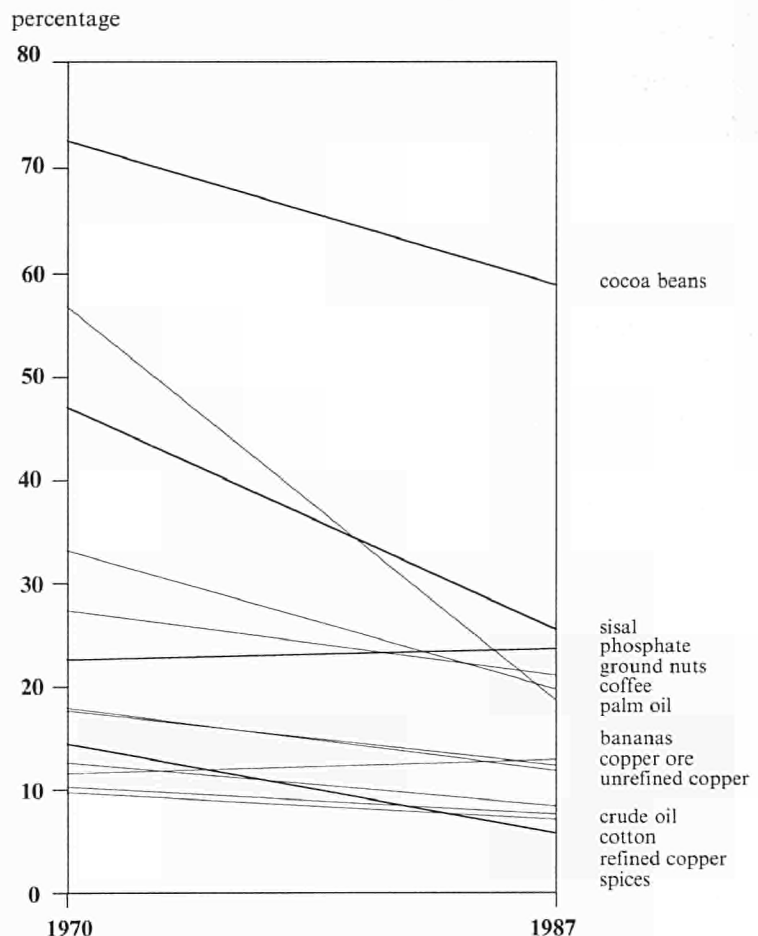
The most important thing, however, is to devise a real, overall strategy for the primary sector. This must be “applied relentlessly, on a stage-by-stage basis, over a period of

several years”, and must be designed to cover food security, agricultural research and extension work, the use of efficient production technology, the development of the local processing of non-agricultural primary products, the privatisation (or failing that, decentralisation) of primary sector management, a more efficient national and international marketing system, and so on. Achieving these aims means spending the necessary resources and the report recommends

that “African governments soon reach the stage where 25% of their budget expenditure goes on agriculture, infrastructure included, “cutting” military spending—currently an average of 10% of the States’ budgets—down to a maximum of 5% if need be.

The second level at which action is called for is the region. Regional economic integration particularly needs to be intensified, the report points out, and this means “reducing the

**Africa’s share of exports in the world market: 1970 and 1987**



Source: UNCTAD, *Commodity Yearbook 1989*, New York 1989.  
 Note: The graph covers products where Africa’s share of the world total exceeded 10% in 1970.

(1) Africa’s primary sector problems: Towards a solution — Report by the UN Secretary-General’s Expert Group on Africa’s primary sector problems — UNCTAD Secretariat, Task Force on UN Programme of Action on African Economic Recovery and Development (UNPAAERD). Geneva, Switzerland, 1990, 188 pages.



*Cocoa in CAR — a primary product which saw a dramatic price fall on the world market*

present number of regional systems” to ensure “a more direct focus on their aims” — a process which could be “led by the ECA” (Economic Commission for Africa) in conjunction with UNCTAD. The report makes its most detailed suggestions on this point (see box).

And measures should be taken by the international community too, as the experts maintain that “a change in its behaviour” is every bit “as decisive as a change in African behaviour. It must be realised that Africa will not overcome its problems without more substantial aid, that there is no overnight solution and that, although more reliance must be put on the machinery of the market, this alone will not solve the continent’s problems”. The main aid bodies—in the UN group and the OAU in particular—are therefore invited to take “a positive and constructive attitude” to the report’s recommended approach, to “establish or reactivate” the international product agreements and con-

Price trends and fluctuation <sup>(a)</sup> , 1962-1989 <sup>(b)</sup>				
Products	Trend		Instability	
	1962-1978	1978-1989	1962-1978	1978-1989
<b>A. Agricultural</b>				
1. Cocoa	+7,4	- 6,7	31,1	14,7
2. Coffee	+3,4	- 3,3	30,6	14,6
3. Cotton	+1,5	- 4,5	17,9	13,2
4. Sugar	+7,4	-12,4	82,0	65,0
5. Tea	-3,2	- 3,1	22,9	15,1
6. Groundnut oil	+3,1	- 7,5	21,0	23,3
7. Tropical timber	+1,0	- 0,1	21,3	12,7
8. Hides & skins	+1,4	- 5,9	20,3	23,7
<b>B. Mineral</b>				
9. Copper	-5,3	- 3,7	22,1	26,7
10. Aluminium	-1,0	- 3,7	11,8	28,8
11. Phosphate	+5,6	- 3,9	41,2	13,2
12. Iron ore	-1,3	- 1,8	12,4	6,8

*Source:* UNCTAD, *Commodity Yearbook 1989*, New York, 1989.  
*NB:* The price trend is obtained by the annual average price variation expressed as a percentage. The prices are in dollars (constant).  
 The formula is:  $\log(P) = a + b t$  where P is the price and t is the time. Instability is the average deviation (%) from the exponential trend.  
 (a) Nominal prices corrected by means of the unit value of the manufactures exported by the developed countries.  
 (b) The figures for 1989 only relate to the first seven months.

## Extracts from the recommendations

### Agricultural research

It is suggested that "each African government:

- lay down priorities for research and extension work with a view to food production, the reduction of pre- and post-harvest losses, the main export primary commodities and those products which have good potential when it comes to the projected strategy for the primary sector;
- call on native experts for the research and extension activities and, if there are none, insist on aid programmes incorporating a realistic proportion of training;
- improve cooperation and communications between research establishments, with an eye to complementarity; supply the means of monitoring any research activity of interest to African primary commodities carried out elsewhere; organise the efficient dissemination of these findings."

### Marketing

African governments should:

- "produce a critical evaluation of the international marketing machinery likely to come into play for a given primary commodity (for example, direct sale, auction and long-term contracts) and which could perhaps be put to better use (futures, barter trade etc) in the light

of the specific situation of the product and the country; run policies which encourage and facilitate the marketing arrangements which best suit the marketing system in question and, in particular, open the way for new outlets outside the continent, Eastern Europe and Asia included."

### Regional cooperation

The experts recommend:

— "the ECA to take the initiative, in conjunction with UNCTAD, mobilising the African governments and relevant international organisations with a view to practical decisions to:

- rationalise and simplify the formalities and documents involved in intra-African trade;
- in particular, rationalise and simplify the customs and transit formalities to do away with delays at frontiers and transit points;
- standardise overland transport procedures and rules. This means, in particular, continent-wide standardisation of vehicle registration and lading systems so that haulage firms are fully entitled to operate on a regional basis;
- do away with all other impediments to intra-African trade, including artificial protection and non-tariff barriers;
- set up regional associations to

organise international transport systems and assembly points to ensure profitable loads on long distance transport;

- set up an association of shippers, on which the producers' interests are represented, to negotiate more favourable conditions for consignments going outside the continent;
- set up commercial information networks for the regions and sub-regions to provide, as requested, precise data on supply and demand and on the rules and regulations of trade.

Poor export credit facilities and non-convertible currencies are major obstacles to intra-African trade, so the experts suggest that:

- a deliberate effort be made to improve both the export credit facilities available to intra-African trade and the existing payment machinery;
- investigation be continued of the possibilities of setting up a compensation or payment system to provide the resources in convertible currency to maintain compensation and trade at a high level, in consultation with the African Development Bank, the Bank of West African States and the Chambers of Compensation of West Africa, of the preferential trade area of the States of East and Southern Africa and of the Economic Community of Central African States."

sumer/producer groupings, to lower "the barriers closing markets to processed and unprocessed commodities" (this means the Multifibre Arrangement in particular) and to provide more, better adapted and better coordinated aid. The European Community and the Common Agricultural Policy are mentioned too: "the Community quotas applied to CAP products which are important to Africa should be increased during the Uruguay Round or at separate negotiations, it is suggested, and periodic and seasonal restrictions should be abolished". The World Bank and the IMF, the experts say, should think about protecting vulnerable sectors from potentially damaging effects

when they devise programmes of reform to help the African countries. The Bank especially should apply the principles it defended in its recent study of sub-Saharan Africa — that the priorities are to improve health, develop education, ensure food security and create jobs".

And, following what is virtually a tradition in this kind of report, a "follow-up", by the UNDP, is suggested.

At a time of world price stagnation in the primary product sector (see table), it would be rash to see a strategy based on them as a "solution" — if part of the emphasis were not on food crops and their consump-

tion on the local market, and if *another* strategy were possible. But, setting aside local processing and the development of new products, which cannot really be achieved in the short term (as they involve either prior investments or research), do many African countries have any choice? The failure of old theories of the "industrialising industrialisation" type suggest they do not. But, as often happens with this kind of very general report, each party concerned has, if it feels the time is right, to think about the best way of transforming the general recommendations of the experts into *operational* guidelines — which may vary considerably from one case to another. ○ M.-H.B.

## Africa beyond crisis? – A Mozambican viewpoint

*Thanks to an initiative taken by the Dutch Minister for Cooperation and Development, Mr J. Pronk, an international conference met in Maastricht (Netherlands), last July, under the heading "Africa Conference", to examine the problems of and possible solutions for Africa. President Quett Masire of Botswana and Mr Macnamara, former President of the World Bank were co-presidents of the meeting in which participated, most of them at ministerial level, representatives of 46 African countries, 20 donor countries, 7 international organisations such as the World Bank and IMF, and 22 development institutions — not to mention the EEC represented by Mr Marin, Vice-President of the Commission.*

*Rather than summarising more than a hundred*

*interventions followed by debates—such a summary would be a task as difficult as it would be frustrating—"The Courier" has chosen to propose to its readers very large excerpts of only one speech, delivered by Mr Abdul Magid Osman, Mozambican Minister of Finance.*

*Mr Abdul Magid Osman has explored four themes selected from the conference issues: the present absolute inadequacy of public sector resource availability and limited room for further cuts, the prospects for increased availability of resources—domestic and external—in the 1990s, the potential for reallocation within total overall expenditure; and accountability—national capacity and the imposition of multiple, and different, external accounting and reporting systems.*

"These problems are all extremely acute in Mozambique and I illustrate my argument primarily from my own country. But, I am confident that our case is not unique. These four problems, doubtless in varying degrees, are general to our countries and our continent. By stressing the attention to these four problems, we are not diminishing the importance of other questions such as the indigenous private sector, an open and market-orientated economy, etc. which are generally accepted. The same is not true for the problems we intend to deal with here.

### Resource inadequacy

Government expenditure in 1990 in Mozambique is 58% of GDP, which is clearly too high, and there is a demand by multilateral and some donor countries that it should be reduced.

The figure of 58% is rather high in comparison both with a number of other developing countries and especially with developed countries. But if we have in mind the behaviour of GDP in the last 15 years and the present structure of public expenditure, particularly recurrent expenditure, we must conclude that the resources available are wholly inadequate.

It is important to note that about a quarter of public spending in Mozambique in fact consists of a form of transfer payment — emergency, survi-

val support for those people displaced and impoverished by a war which has been imposed on Mozambique. Therefore the budget figure in terms of GDP should read more accurately 42% instead of 58%. The figure of 42% may itself give a wrong weight if one fails to look at what has happened to Mozambique GDP and especially to GDP per capita. The least adverse estimates show a fall in constant price GDP from US\$ 3 500 million in 1971 to about US\$ 1 800 million in 1990. Per capita, the fall is from US\$ 350 to US\$ 130. In absolute terms GDP fell from a notional 100 in 1971 to 90 in 1974 and to 80 in the following years. It recovered to 90 in 1980/81 before war overwhelmed the economy, collapsed to 44 in 1986 and due to adjustment it will soon recover to 51 — in any case a 49% fall over 19 years. Per capita, the fall is from 100 to about 37, a 63% fall. These figures are even worse if, instead of adjusted exchange rates, official exchange rates are used.

This is extreme even by African standards. But recent international data show an average GDP fall in SSA of 25% in the 1980s so that the trend is general even if the degree in the case of Mozambique is extreme.

Therefore the main conclusion is that, had GDP per capita remained constant, present government recurrent, emergency and capital spending of about US\$ 54 per person per year would be only 15% of GDP (...).

Certainly one cannot simply present government expenditure per capita without reference to GDP per capita. But, and it is a big but, basic health, education, pure water, agricultural extension, administration and most of the other recurrent expenditures have some minimum costs per capita, below which they cannot be supplied broadly or effectively (and that level is well above present Mozambique spending). And if human investment and infrastructural rehabilitation are seen—as is now apparently the consensus—as crucial to creating an enabling environment in which households and enterprises can and will increase production, then not only most recurrent but also most capital costs have per capita floor levels below which they cannot be effective, whatever the present level of GDP per capita.

### Prospects for increased resource flow

The inadequacy of spending and of resources becomes more evident and also by itself a key issue when one looks with a realistic eye at probable resource availability levels (...).

Grant and soft loan flows seem to me—and to most serious projectors—to be unlikely to grow more than 4% a year in the 1990s (...).

Significant private funding—except in special export oriented niches—cannot be expected. Commercial lenders

would be reluctant to make substantial long-term loans to more than 2 or 3 African countries and given the interest and amortization costs — most African countries would be foolish to borrow much at those rates, even when such loans are offered. As to direct investment, the combination of low per capita purchasing power tending to decline, excess present capacity, dilapidated infrastructure, weak education and limited foreign exchange availability (whether market or mixed market/state management allocated) for raw materials, spares, foreign personnel costs and profit remittances, is not in my view one that will encourage sensible, competent foreign investors to rush in. Why on earth should they rush until there is a record sustained for at least five years of improved conditions on all of the fronts I have cited?

Reduction of debt service may be a possible source of augmenting *net* resources inflows. Mozambique uses over two thirds of visible export proceeds (one third of visible and invisible proceeds including formal remittance transfers) to service a rather small proportion of outstanding external debt. The SSA average is of the order of 30% (on rather less attenuated export bases). This is after agreed reschedulings and relates to cash flow only, not to still growing arrears.

No reasonable person believes most of the external debt of most African economies can ever be repaid in any real sense. It would simplify life for all concerned if that portion could be estimated dispassionately and written off now.

If that is impracticable—and I do not see what purpose of creditors is served by delaying what will happen at some point, and by some means—at least a **moratorium** on most of 1990s interest and principal payments should be negotiated at one go, not as 5 to 7 or 18 to 24 months reschedulings. The opportunity cost of those reschedulings is, for many African States, enormous:

- it prevents rational forward budgeting as one cannot know future debt service bills and both creditor countries and international financial institutions object to projections which assume generous full scale reschedulings;
- the proportion of the time of scarce senior economic officials tied up in the

Paris Club talks and subsequent bilateral follow-up is appalling. In some years it has been at least 15% to 20% of the time of all degree holding professionals in the Mozambique Ministry of Finance and the Bank of Mozambique. Surely there are more productive uses for their time! (...)

One implication is that serious thinking—and acting—must be devoted to raising present parameters of resource supply growth. But my present point is that allocation needs to be looked at again with a view to raising efficiency — “getting more for the present level of available resources”.

### Allocational efficiency

Absolute cuts are unlikely to raise efficiency. If across the board, they cut into levels which are already too low. If selective, they are—with rare exceptions—unlikely to save more than 10% of recurrent spending.

Recurrent spending is too low not only absolutely but relative to capital spending, although in the case of Mozambique the distinction between capital and recurrent expenditure is not always very clear.

Normal maintenance work and technical recruitment have been changed into “projects” funded by external resources, inflating costs. In most cases and under normal circumstances, this could have been avoided if recurrent spending procedures had been used.

Within both capital and recurrent spending there are opportunities for reallocation that could yield substantial gains in the impact of present or slowly rising spending levels. In general these relate to **reducing average project size, increasing domestic labour relative to imported capital content, using appropriate technology standards and maintenance, and broadening the scope and proportion of spending on basic services and infrastructural spending, aimed at poor households.**

None of these ideas is particularly new; I may see them as more central and urgent than many who would broadly agree with them.

What we now need to ask ourselves is why little progress is made along these lines. First is the tyranny of projects; once a project is approved

and it is financed externally in principle, it becomes exceedingly difficult to delay, to cut its scale or even to reshape it (the same cannot be said of maintenance or the purchase of basic operating materials — such as textbooks or drugs). And the tyranny is both micro/macro and more subliminally based in thought processes that are conventionally used. Most “Development Plans” devote 90% of their space to projects, with a rather perfunctory setting out of strategies, programmes, policies or targets to be met. Accordingly, when considering whether to provide resources, donors demand detailed projects and—whatever their concern for policies in other contexts—rarely desire a coherent policy/programme/project package.

Second is the belief that capital spending is good or aid-worthy while recurrent expenditure is suspect or not appropriate for aid. This again bedevils the efforts to increase national maintenance capacity or its funding. The donors angrily complain of lack of maintenance. They rightly point out that proper, timely maintenance would be much more cost efficient than repetitive rehabilitation or reconstruction projects. But by their own allocations of funds, they have played a major role in creating the system they decry.

Third, large, imported model, high import content, new capacity projects have their uses. It is easy to spend lots of money on them. They look impressive in a way no amount of seeds, hand tools, agricultural extensive or labor intensive road maintenance ever can.

Certainly much of the problem is in Africa and can only be solved by us. But we would find it easier if the standard terminology and proposal formats we face from abroad were less project centred. And since our rehabilitation of government services and infrastructure is heavily “donor fuelled” (and all too often “donor driven” and “donor designed” as well) the domestic corrections cannot be made so long as donors place heavy emphasis on projects as they do. One of the main ways could be to shift funding to recurrent—especially maintenance—spending and redesign capital programmes to be less import intensive and more labour intensive. But to do that, we need donor cooperation, not simply at the level of urging

us to do these things, but at that of shifting their resource allocation to us along these lines (...).

### Accountability, national capacity and multiple systems

My problem is that donors are—however accidentally, through defective contributions—reducing national accountability and transparency of expenditure and destroying, not enhancing national capacity in these areas. They do this by **imposing their own national or agency accounting and reporting systems** on us. The resources they provide in that way, hopelessly swamp our (and perhaps anybody's) capacity to keep coherent accounts or to present transparent (or even complete) accounts of spending. One must doubt whether in the end they even achieve their own goal of obtaining more accurate finance accounts and reports.

Of course most of our national accounting, expenditure presentation and reporting systems need improvement in design, in trained personnel and in achieved operational standards. But to improve them we need to have **single, unified national systems** both to present data to those who provide our domestic resources and more important to our own analysts, planners, budget designers, managers, taxpayers and actual or putative service users.

But it is precisely that evolution and up-grading of national capacity that donors and international financial institutions prevent in practice, by insisting on their own accounting and reporting systems. Unfortunately the experience of assistance, at least in the case of Mozambique, is producing results which are opposite to that expected and, in fact, in some cases, the contribution is reducing national accountability and the transparency of expenditure, while destroying rather than enhancing national capacity in these areas. This happens in the following way:

— imposing the donor's or institution's own system of accounting and reporting, for the resources provided;  
— imposing the requirement that the financial project be given high priority and special "status";— building special technical units staffed with expa-

triate and nationals who previously held top posts in the public services; — offering artificially high wages preventing the government from recruiting managers for public administration.

In some cases, the accounting and reporting needed to keep resource inflows coming, so overwhelm local capacity that we are utterly unable to produce consolidated resource use or analyse accounts for our own ministries, directorates and agencies.

I remarked that I doubted this served the donors' purposes. The inefficiency of seeking to operate multiple systems means that all are mutilated badly. If, as is sometimes argued, any reasonable system of reports and accounts can be recast to meet the needs of any particular situation, should we not agree to strengthen unified African reporting and accounting systems suitable to African national needs, and to have donors recast the data from these systems to fit their own internal procedural, analytical and auditing proposals? (They, after all, have large numbers of skilled accountants and report presenters which we do not). (...)

Yes, we must improve accountability in African public resource use. Yes, the work includes both African governments and those who wish to cooperate in this effort. But we can only do it if African states have single national systems and if advice on how to improve them is based on some understanding of the systems and their goals and is consistent with the changes in direction it incorporates.

### Some modest proposals

How then, in the light of resource levels, present inadequacy and poor growth prospects in the public sector, could donors assist African governments in enhancing the efficiency of resource allocation and use?

1. Commit **resource transfers on a three year, rolling budget basis** to allow efficient budgeting based on firm projections (as is possible with national resources). This need not mean three year aid votes, or no possibility of changes up or down in actual final allocations (domestic revenues do not usually correspond exactly to projections);

2. Make smaller commitments in the first instance, **less tied to** either recurrent or capital budgets and, in particular, less tied to particular projects. This would allow for a genuine dialogue on how the resources can best (most efficiently) be allocated and being for much more specific use, would be quite consistent with final agreements and transfers. One alternative is for the commitments to be by sector, again with no fixed preconception on recurrent/capital, import support/programme or broad functional/specific project support;

3. Make **greater use of import support grants** and soft loans to governments, to finance the foreign exchange cost of commercial enterprises, raw materials, component and spares imports, making the resultant counterpart funds available for broadly defined ranges of recurrent, maintenance and rehabilitation local costs (...)

4. Support the development of unified, adequate, nationally appropriate accounting, reporting and transparency of public expenditure systems. If such a commitment is to be effective, the additional/systemically divergent monitoring of and accounting for flows of external resources has to be kept to a minimum, putting administrative, accounting and other managerial advice in the context of the existing national system, with agreement on the desired direction of any changes and on the attendant timetable related to the actual capacity to achieve them.

5. Write off now that portion of the African external debt which realistically is not and will not be serviceable or cannot be serviced without aborting recovery and sustained growth (a cost to the creditors as exporters and an even higher cost to poor African households). At least reschedule all 1990s payments in one go, to save the time now devoted to the virtually constant meeting of the Paris Club, and the attendant bilateral and other rescheduling exercises, which seriously misallocate senior African economic expertise and do not, in practice, either increase the repayments actually made or provide useful input into policy dialogue beyond what exists in the context of negotiations over new flows". ◦



# Lake Chad: the waters return

by Victor J. KUMAR (\*)

For the first time in over five years the waters of Lake Chad are returning to Niger. The serious droughts of the '70s and early '80s have seen the lake diminish substantially in size to such an extent that it had completely disappeared from Niger's territory, which in a normal year has 3 000 square kilometers of water. Even given the cyclical nature of the climate, the lake had shrunk to probably its smallest size in recent times.

## Characteristics

Lake Chad is the fourth largest African lake after Victoria, Tanganyika and Nyasa, and the third largest endorheic lake in the world. It is bordered by four countries — Nigeria, Niger, Chad and Cameroon.

The total drained surface area of the lake is estimated to be 25 000 square kilometres. It is fed mainly by the rivers Chari and Logone du Cameroon — which together account for around 85% of its water resources — El Beid on the border between Nigeria and Cameroon (4%), and the Komadougou-Yobe (1%), which forms the boundary between Niger and Nigeria. The latter two are not permanent rivers, generally flowing only between July and February.

Rain water accounts for just over 10% of the lake water resources. Depending on the season, the depth of the lake varies between two and five metres. Cyclical climatic changes have resulted in a lake size as low as 10 000 km<sup>2</sup>.

The lake is believed to have been at its maximum extent some 50 000 years ago, when it was at a height of 400 metres above sea level. At its western fringes it then reached the area of Zinder and Kano, and covered 350 000 km<sup>2</sup>. In those days, the lake was also fed from rivers originating in the Aïr, Tibesti and Ennedi Mountains to the north; there

was an outlet to the north-west — the Barh El Ghazal, now completely dried out.

The lake is known to have regressed three times this century. Its maximum recorded depth in recent years reached 5.10 metres in 1965. Since then it has retreated to the extent that 30 to 40 km of the lake-edge had evaporated, reflecting the considerably reduced inflow. In a normal year, the Chari has a median flow of 1 280 m<sup>3</sup> per second. In drought years there is a significant reduction — in 1974 it reached 554 m<sup>3</sup>/sec and in 1984 it was as low as 213 m<sup>3</sup>/sec. The relatively heavy rains of the past few years have once again replenished the flow to some extent.



*The Logone du Cameroon, one of the rivers that feeds Lake Chad*

The bed of the lake is divided into two basins by the great barrier of Baga Kawa. This consists of banks, high zones and marches and extends in a north-easterly direction from the Nigerian shore. It comprises an archipelago of around 1 000 islands covering over one third of the area of the lake. When the water level drops significantly, the archipelago is effectively connected to the mainland. The dunes are generally about 20 feet high. In dry periods the two basins are totally separated, when the northern part effectively dries out, and the southern part becomes unnavigable. In normal times the latter resembles an inland sea, its open waters covering about one third of the lake area.

Another factor of importance in determining the level of the lake is the extent to which water is taken off or

held back through the construction of dams and use of water for irrigation projects. The northern basin of the lake is most vulnerable to such programmes.

In the conventional Basin of the lake there are an estimated 7 million inhabitants, of whom just under half live in Nigeria, a quarter in Chad, a fifth in Cameroon, and the balance of around 300 000 in Niger.

The area is inhabited mainly by the Kanuri-speaking people. However, the population consists of a large variety of tribes and sub-groups such as the Mobeur, Manga, Kuburi, Buzu, Toubou, Boudouma, Arabs, Hausa, Sougouri, Peul, Bororo and Touareg. These tribes follow traditional occupations, e.g. the Mobeur are cultivators mainly using irrigation techniques; the Hausa cultivate largely through non-irrigation means; the Peul are herdsmen as well as cultivating millet and groundnuts in the winter. The Kotoko who reside mainly in Cameroon are fishermen, and the Choa are pastoral nomads who move mainly between Chad and Cameroon.

## Historical background

The lake has been dominated over the centuries by various empires and bellicose tribes. It is thought that the original people, the Sao, came from Yemen prior to the fourteenth century, between six hundred and a thousand years ago. The area was islamised about the same time. It was dominated by the Kanem Bornu Empire which reached its apogee between the fifteenth and eighteenth centuries.

Following the conquest of Bornu by the Senoufo, the Sao broke up into sub-groups. Although the area came under the suzerainty of the Bornu Empire, it was not properly occupied until the first half of the nineteenth century. The disparate mixture of local tribes ensured that there never was any organised resistance. At times they were subject to pressure from Touaregs from the north, to whom they had to pay tribute. The region eventually came under the influence of the Damagaram to the west of Lake Chad, and the centre of power shifted over to Zinder.

(\*) Mr Kumar is an economic consultant with a long African experience.

Migration has continued well into modern times. The Toubou and Arabs arrived prior to the twentieth century, while the Peul (Bororo) are more recent arrivals, coming to the area as a result of the severe drought of the 1970s.

Various missions have entered the area ever since Heinrich Barth visited it in 1852 and 1854. Europeans became interested in the region following the Berlin Congress towards the end of the nineteenth century, when the division of Africa gave this part of the world to the French.

The last decade of the century saw a number of French military missions — Voulet-Chanoine, Joalland-Meynier, followed in 1889 by the Fourreau-Lamy and the Gentil Mission which won control of the area at the Battle of Kuseri in April 1900. The French presence on the eastern side of the lake was firmly established by the establishment of a military unit at N'Guigmi in 1904.

The present demarcation of frontiers was decided mainly along the lines of the rivers in the area — the Komadougou-Yobe between Niger and Nigeria, the Chari between Cameroon and Chad, and the El Beid between Nigeria and Cameroon.

### Economic activities

The partition of the lake between the four countries bordering it

resulted in the establishment of the Commission of the Lake Chad Basin (CBLT) in 1964. The Commission is based in N'Djamena, and meets twice a year. Its present budget exceeds \$1 million. It is responsible for the discussion of matters related to the division and use of the waters, and is also concerned with economic development possibilities on the lake-side.

Economic activities around Lake Chad include agriculture, livestock, fisheries and forestry. Half of the population are thought to be pastoralists. The region has an estimated seven million cattle, ten million sheep and goats, and 200 000 camels.

The level of economic activity is inevitably linked to climatic factors and the effect this has on the water resources of the lake. Although the rainy season is short, lasting only from July to September, the level of the lake is at its highest at the end of February, and ironically at its lowest at the end of the rainy season. During the dry season and in periods of drought there is a considerable amount of emigration, both for agricultural workers seeking employment during the "dead" season, and the pastoralists in search of feed for their livestock.

Little attempt has been made to control the flood waters of the lake for irrigation purposes. Schemes exist only on the rivers which flow into the lake, where channels have been con-

structed to use the waters for an extended cultivation season.

The lack of population pressure in the area has meant that the farmers are content to follow the receding waters of the lake for planting second crops, rather than develop an infrastructure in one place for the storage of water.

Millet, maize and sorghum are the main crops based on flood and rain water. Cassava, wheat and some rice are grown in the river basins. Local millet (Boudouma) is short cycle and specially adapted to the environment. Niebé (a type of bean) is the main vegetable crop grown. A curiosity of the lake is a species of niebé which is believed to regenerate itself through the roots.

Commercial crops are grown mainly in the basins and on the banks of the rivers. These consist of cotton and groundnuts in Cameroon and Chad, and pepper in Niger. The latter is grown in the basins of the Komadougou River and is sold to traders in Niger and Nigeria and much of it is exported. However, no commercial crops have as yet been cultivated on the basin of Lake Chad water.

Quantities grown and productivity of crops are very low, with most farming still carried out on a traditional basis, using manual means of water extraction such as *chadoufs*. There is, however, a slow advancement of modern techniques, particularly in the use of tractors and water pumps.

Given the abundance of land, much of it relatively fertile, there is little pressure on it for cultivation purposes. Ownership is communal, and land cannot be bought or sold, allocation being made by the traditional chiefs in the villages. The land is automatically the responsibility of those who cultivate it, and reverts to the community after the harvest period. Sharecropping does not exist. Despite attempts to develop the co-operative system, little success has been achieved due to a lack of funds, training, organisation, and equipment.

Less well-known crops are grown for local use. These include *gorgo*, which is used as a cosmetic for colouring the teeth, *ouloua* — a cosmetic for hair, and *garaoua-alalou* used for animal feed.



WFP - Matitoli

*Cultivating millet in the dry area of Zinder (Niger). 50 000 years ago Lake Chad's western fringes reached around Zinder*

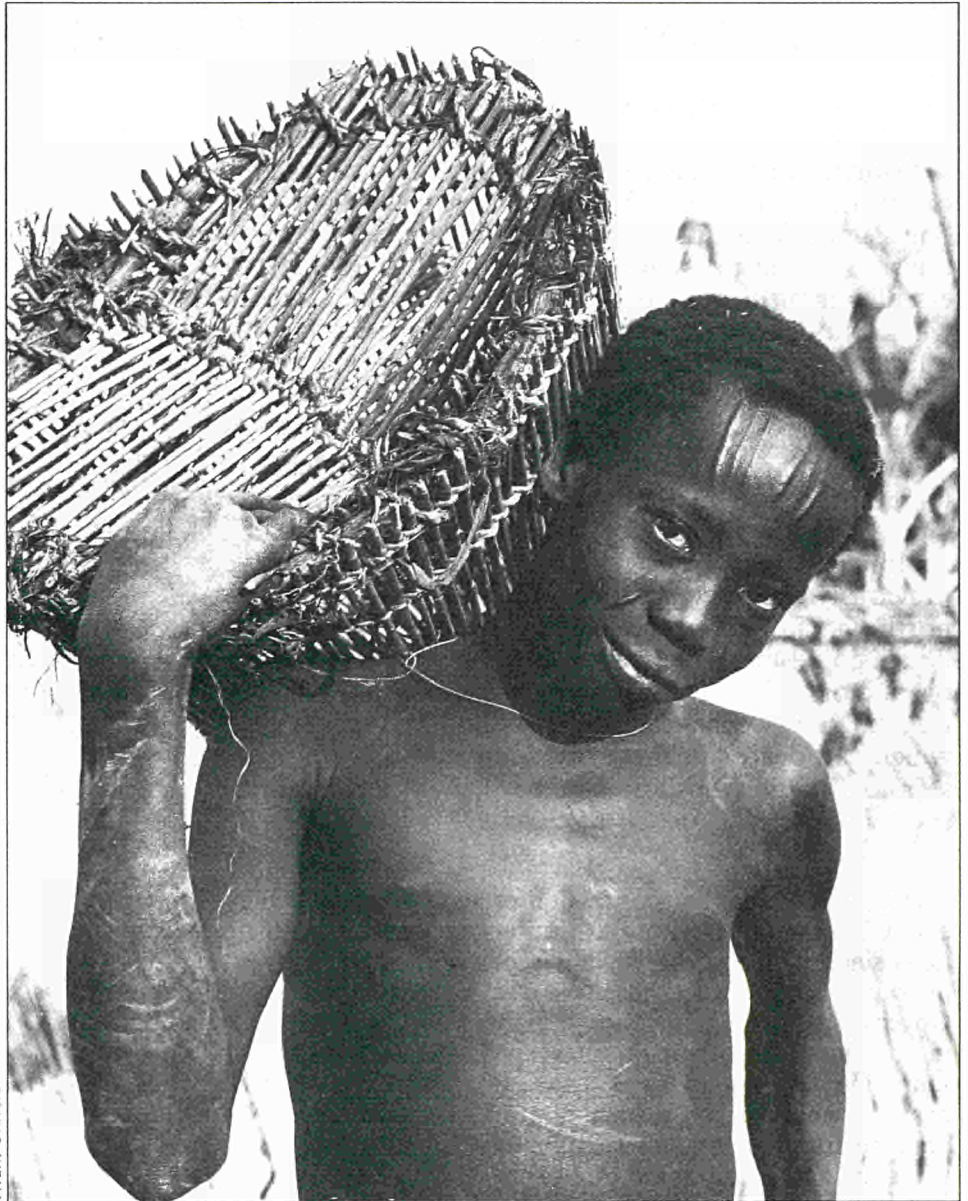
Livestock is the major activity in the region and is carried out mainly by the Boudouma and the Peul. Lake Chad is noted for the *Kouri* breed of cattle — famous for their enormous hollow horns (some of them up to 25 cm in diameter) which act as “life-belts” enabling them to swim from island to island. The breed is good for its meat and milk, but is in danger of disappearing due to intermixing with other races. It is estimated that at present there are only 400 000 pure *Kouri* cattle left. Other breeds include the Bororo, Zebu and Azarak. Commercialisation is carried out mainly “on the hoof” in a traditional manner, and there is little in the way of development of tanneries or abattoirs on the lakeside.

The drought of the early 1980s has resulted in a dramatic move south of the pastoral tribes. Waterholes are undeveloped, and a recent report estimates the need for around 400 watering points around the lake, to encourage better development of the sector and to promote sedentarisation.

With the recession of the lake, fisheries have been difficult to develop on a commercial basis. About 100 000 people are involved in the sector. Annual catch is in the region of 100 000 tonnes. However, around a quarter of this is lost through bad conservation and handling problems. Fish are a major source of protein to the population in the area, and the Lake Chad Basin Commission is putting forward programmes to develop fishing centres.

Forestry resources exist around the lake, but, as noted above, desertification is a major problem. Cactus plants such as *colotropis procera* (which are indicators of desertification) predominate, particularly on the islands of the lake. Desertification has largely been the result of the drought, but, undoubtedly, the use of firewood and the making of charcoal have been contributory factors. Measures are being taken to try and control the creep of the desert, particularly in Niger, but these are having little effect and are being done on a small scale.

Commercialisation of forestry resources is limited. At one time, gum arabic was a major commercial crop in the region. *Acacia Senegalensis* were common trees, but changes in



Vivant Univers

*Off for a day's fishing. For the lakeside populations, fish is of course a major source of protein*

the eco-system has resulted in significant reductions in the forest areas — in Niger it is estimated that these have reduced from 70 000 to 20 000 hectares. Logging activities are on the increase, calling for greater conservation measures. Other trees used for commercial purposes include the *doum* palms and *roniers*, which are used for wood and dates.

Economic activities in other sectors are severely limited. Traditional activities included the manufacture of natron—soda carbonate produced by natural means in the basins—and the manufacture of salt (mongoul). Adebour was noted as a major salt production centre when it was visited by a European mission in 1908, when trees were being used to fire the furnaces

for mongoul production. In the past, exports were sent as far as Central Africa. Both these products have been virtually replaced by industrially-produced goods imported from Nigeria. Other development opportunities are at present restricted to potential petroleum deposits, where there are some encouraging indications.

Future prospects for the development of the region thus depend on the extent to which conjunctive use of lake, river and underground water can be made in extending the possibilities for improving agricultural and livestock production. Cooperation between the four countries which border the lake will be essential to ensure an equitable and efficient use of the lake waters. ○ V.J.K.

# A new approach to the disabled in Africa

Chris McIVOR (\*)

Prior to independence in 1980, one doctor served, on average, 100 000 Africans in rural areas. Wrote one Zimbabwean pediatrician in the 1970s: "Three quarters of our population are rural, yet three quarters of our medical resources are spent in the towns, where three quarters of our doctors live. Three quarters of the people died from diseases which could be prevented at low cost, and yet three quarters of medical budgets are spent on curative services".

Overhauling the medical system at independence, therefore, was a major priority of the Government and a significant part of its policy was to spread health care services to those areas of the country previously neglected. Claimed one rural inhabitant in northern Zimbabwe: "Several years ago even minor illness could mean death. We had no access to clinics or doctors. The nearest hospital was several days' travel. Now we have our own clinic in the village which can deal with most problems and if there is a serious illness, transport can be provided for more specialist care."

Over and above the construction of about 200 mainly rural health institutions since 1980 and the upgrading of provincial and district hospitals, the Government has also invested heavily in the provision of clean water and sanitation facilities in rural areas. It has also embarked on a training programme for mothers and community workers in the principles of hygiene and nutrition. The result has been a spectacular decrease in the numbers of infant mortality cases, as well as an 80% immunisation rate among the rural population. While the aim of health for all by the year 2000 might be an optimistic one, claimed a Zimbabwean Government official, health services seem to be moving in the right direction and the results of the last nine years give hope for the future.

One sector of the population much ignored in pre-independence Zimbabwe were the disabled. Services for these people were meagre, claimed a rehabilitation worker with the Ministry of Health, and those that existed tended to cater predominantly for the white population. "In rural areas there was nothing for disabled people,



*A child with a hearing disability at a workshop on rehabilitation in rural Zimbabwe*

resulting in a life of immobility and stagnation with no backup and support for families to encourage the participation of afflicted members in the life of the home and community." But it was only after 1980 that the true extent of the problem became apparent. A survey conducted in 1983 revealed that up to 10% of the entire population, some 800 000 people, suffered from a disability of some sort. The poor health care facilities in the rural areas, lack of immunisation against debilitating diseases, the effects of a long and bloody war which witnessed high civilian casualties were all accounted responsible factors for these alarming figures.

Providing some sort of rehabilitation service, therefore, formed a significant part of the health programme in the years following independence. But it became clear that the type of service for the disabled based on the Western model the country had inherited was inappropriate to the scale of the problem and the types of difficulties encountered in remote rural communities. The results of a survey carried out in 1983 echoed this fact throughout Africa when it was established that about 2% of disabled people had access to rehabilitation ser-

vices of any kind. Part of the problem, claimed one Zimbabwean doctor, "is our blinkered desire to imitate the services in the West. As a result we have lost sight of the nature and magnitude of the problems of disability. The rationale given to justify this focus is the need to "maintain professional standards". However, to the 98% of families who are presently receiving no assistance, the argument concerning standards has no relevance."

Since 1980, therefore, Zimbabwe has sought to distance itself from an institutional approach and evolve a service specifically suited to local needs and conditions. More stress has been placed on decentralising services to rural areas and on including the families of disabled persons or the communities in which they reside as participants in the process of rehabilitation.

One part of their programme has been to train a group of "rehabilitation assistants" who are less qualified than professional therapists but who are able to deliver basic services to rural areas which were previously neglected. As one of their trainers at a recent conference on disability in Africa held in Harare claimed: "We

(\*) Coordinator of a British aid agency in Zimbabwe.

are interested in recruiting a group of people with a certain level of education but not with qualifications which will attract them away from the villages and communities in which they reside. We do not want to create a professional grouping who cannot integrate with the rural communities where they will be posted or who wish to migrate to urban areas after graduation."

The two-year training given to these assistants, 160 of whom have graduated since the course began in 1981, is largely tailored to needs among Zimbabwe's rural population. A considerable part of the course consists of placements at district or provincial hospital level, where these assistants are given practical training in the types of problems they would be most likely to encounter at the rural centres where they will eventually be posted. The Ministry of Health's final aim is to have a minimum of two rehabilitation assistants in each district, who will be able to deal with less complicated difficulties among the handicapped and be able to refer more serious problems to the qualified therapists at larger hospitals.

Part of the role of these assistants is also to demystify the rehabilitation of the handicapped, to the extent where family members and communities can implement treatment and take an active part in helping the disabled themselves. To this end, rehabilitation workers in certain districts have organised a programme of home visits to instruct parents on how best to handle their children and integrate them more fully into family and community life. At provincial level, workshops have also been organised for mothers of disabled children. In the provincial hospital at Bindura, northern Zimbabwe, a village has been constructed to simulate the conditions in which most rural inhabitants would live. As one therapist said: "There is little point in training mothers of disabled children in a plush hospital with access to modern equipment and resources which they could not find at home. The idea of building this village is to teach rural women how best to use the resources they have at hand in the rehabilitation of their children." At the same time those who attend the village workshops are less intimidated and are more prepared to

participate in the training programme in an environment similar to their own. The model village has been so successful that the Ministry of Health would like to see the construction of similar facilities at the rehabilitation departments of provincial hospitals throughout the country.

Over and above its training programme for intermediate rehabilitation workers, the Health Services have also sought in a variety of ways to promote a more positive attitude towards the disabled among both the general population and other medical professionals. Traditional attitudes towards the physically and mentally handicapped within Zimbabwe have sometimes proved a hindrance to



Melvor

*Members of a disabled theatre group performing a play on disability in Bulawayo*

their integration into social life. Epilepsy, for example, which affects a considerable number of people in the country, is regarded as a form of spirit possession which can be transmitted by touching the afflicted person. Cases have been reported of epileptics falling into fires and sustaining severe burns because no one was prepared to remove them. At the same time disabled children are often regarded by their families as a punishment inflicted upon them and consequently receive little stimulation or sympathy in their home environment. This attitude, one delegate to the Harare conference pointed out, is not something specific to Zimbabwe but is met with in many parts of the globe including Western countries. Through training of health and community

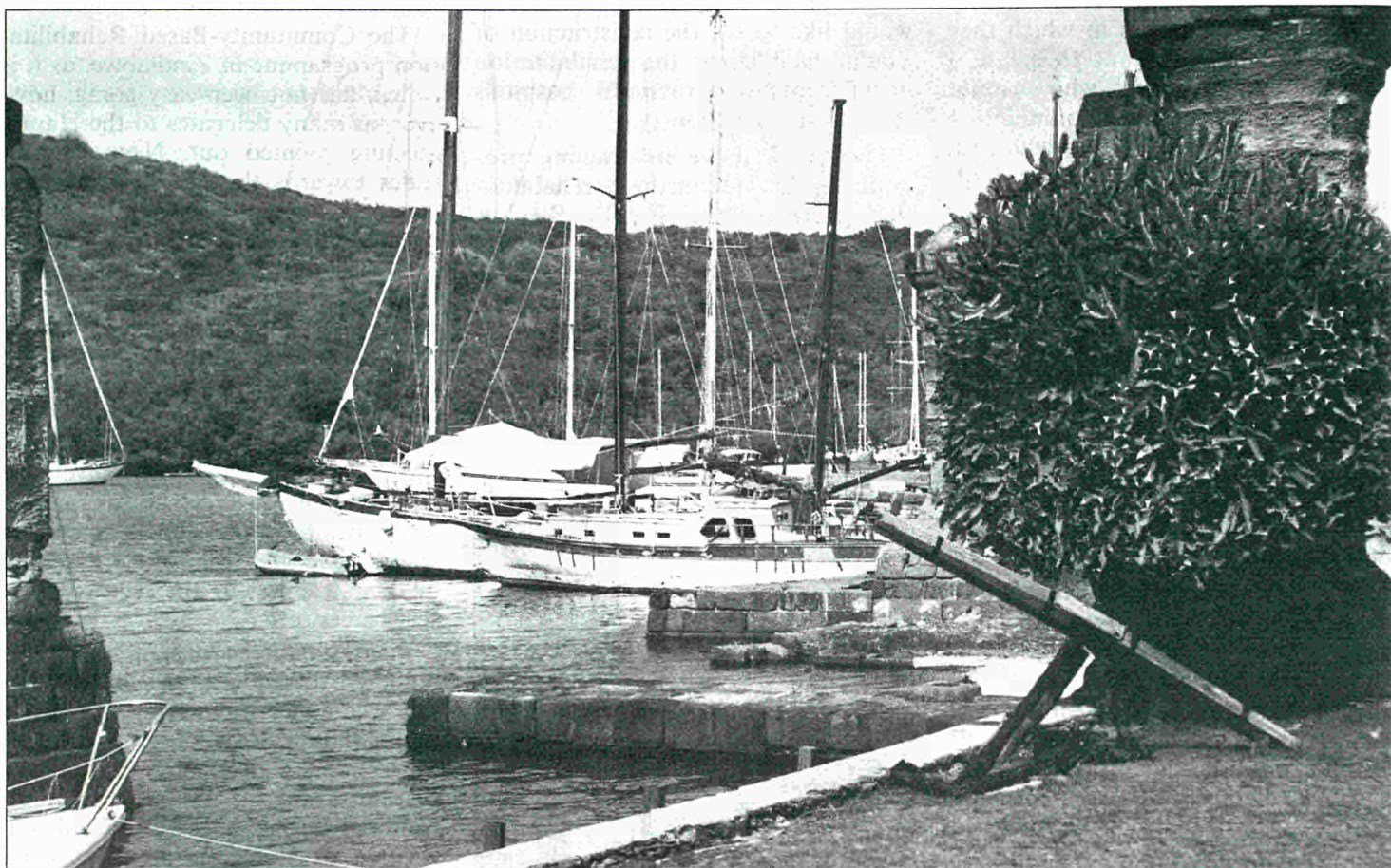
workers, through workshops and conferences, through publications and use of the media, an assault on these negative attitudes is being made.

The Community-Based Rehabilitation programme in Zimbabwe, as it is called, has not been easy going, however, as many delegates to the Harare meeting pointed out. Negative attitudes towards the disabled still continue among certain sections of the population. At the same time the programmes of treatment for the disabled, which can take months if not years, are often rejected by family members and communities who wish to see an "instant cure" and consequently lose patience with an approach which demands a lot of time. Rehabilitation staff have also had to fight for recognition among other health professionals, many of whom have had little or no exposure in their training to the benefits their service can offer.

Professional jealousies have also hindered the programme, in terms of the acceptance of intermediate grade rehabilitation assistants by doctors, nurses and indeed the professional therapists in the country. Medical training, as one delegate pointed out, is often an education in elitism. Consequently when doctors, nurses and so on are advised by rehabilitation workers with only a few academic qualifications and two years basic training they often have a negative reaction towards them. Lack of transport in rural areas has also hindered the outreach programme, restricting follow-up visits to mothers and their disabled children, who have attended workshops, to check up on progress.

Nevertheless despite these difficulties Zimbabwe has much to be proud of in the service it has pioneered over the last nine years. Its approach to rehabilitation, claimed one Western medical professional, is not only of significance to other African countries but is of relevance to the West, heavily dependent as it is on institutions and "professional care". "Our final aim throughout the globe is to allow the disabled and handicapped to become a part of the community rather than a section outside it. By and large the approach adopted towards disability in Zimbabwe has been a choice in a direction which all of us should follow." ○ C.McI.

## ANTIGUA AND BARBUDA



### Nine years of economic expansion, but challenges ahead

*No other Caribbean island has had so much significance in naval history as Antigua. Add to this a variety of sailing facilities, hundreds of bays and inlets and 365 white sandy beaches which rise slightly above opalescent, shallow waters, and it is easy to understand why tourism has conveniently replaced sugar as the mainstay of the island's economy.*

For those unfamiliar with this island, Antigua lies about 440 km south-east of Puerto Rico. It has an area of 280 sq km and a population of 78 500, half of whom live in the capital, St John. Except for the rolling hills in the north end and higher volcanic ones in the south, the island is generally flat and dry. It is prone to earthquakes, and lies in the natural path of hurricanes in the Caribbean.

Barbuda, which forms a nation with Antigua, lies 48 km north of the latter. It has an area of 161 sq km and a population of 1500, all of whom live in the town of Codrington. It has equally fine but isolated beaches.

For naval historians, standing on Shirley Heights in Antigua and gazing down at the magnificent English Harbour is an exciting experience—one that would almost certainly evoke images of Horatio Nelson and 18th century colonial rivalry in the Caribbean. But Antigua's modern history predates this period: English colonists settled on the island as far back as 1632 and the English Harbour's strategic naval attributes did not become apparent until 36 years later when the yacht of the Governor of the Leeward Islands, Sir Charles Wheeler, sought refuge there from a violent hurricane, an experience that persuaded him to write to the Council for Foreign Plan-

tation in London pointing out, for the first time, the usefulness of what was and still is one of the safest natural harbours in the world.

It was tobacco which brought those first settlers to Antigua, braving the attacks of the local inhabitants, the Caribs. But tobacco soon went out of fashion: the soil was poor for the crop and overproduction in the Americas made cultivation uneconomic. Like other colonists in the Caribbean the settlers turned to sugar cane, encouraged by the growing popularity of sugar in Europe as a substitute for honey. They also, like other colonists, abandoned the use of indentured English labourers or convict workers for slave labour, sugar cane being a labour-intensive crop. Slaves were brought in mainly from West Africa.

Barbuda, on the other hand, came under English Royal protection in

1625 along with Antigua, St Christopher (St Kitts) and Nevis, but it was not realistically settled until 60 years later (all previous attempts having failed due to relentless attacks by Caribs from another island, thought to be Dominica).

The arrival in Antigua in 1674 of Sir Christopher Codrington, a rich sugar cane planter in Barbados, to set up the first large-scale plantation<sup>(1)</sup> was a momentous event, for this was the man whose commercial ambition was to lead to the bringing together of Antigua and Barbuda as a nation: Codrington's success in Antigua attracted other big planters (and, in no time, much of the island's central forests were cleared to make way for vast cane fields). In 1685, Sir Christopher leased Barbuda from the English Crown mainly to grow food not only for his family's<sup>(2)</sup> slaves but also for those of other planters. Since then Antigua and Barbuda have been joined together.

The protection of both islands, and, indeed, of all the English possessions ("the Sugar and Spice islands") in the Caribbean fell to the Royal Navy. In 1742, two royal frigates which anchored in the English Harbour for repairs recognised its strategic importance and recommended to the Admiralty in London, the construction of a dockyard not only for the repairs and refitting of ships (thus sparing vessels the long journeys to the "northern colonies for that purpose"), but also for use by the navy as a patrol base. Those recommendations were carried out. The dockyard was built, then extended, and later named, the Nelson Dockyard. The base had served such naval heroes as Rodney Hood before the arrival of the Admiral (then a Captain).

Nelson arrived in the Eastern Caribbean in 1784 during the governorship of General Thomas Shirley, a period marked by heightened colonial rivalry in the Caribbean between the French, the Spanish and the British, and by the Napoleonic wars in Europe. It was from Antigua that

Admiral Nelson sailed in pursuit of a French Fleet during which he fought several battles, one of which was to end in his death at Trafalgar in 1805.

## Decline of the English Harbour

The defeat of Napoleon in 1814, and the return of peace the following year, marked the end of the naval importance of the English Harbour. It also marked the beginning of the decline of the sugar industry, for the price of sugar, which was held artificially high in Britain both by the war and through protective tariffs, plummeted as Britain subscribed to the principle of Free Trade, and moved toward the abolition of slavery—an abolition achieved eventually in 1834.

Antigua and Barbuda became self-governing (and an Associated State of the United Kingdom) in 1967. It acceded to full independence 14 years later, in 1981, led by the trade unionist and veteran politician, Sir Vere Bird, whose Antigua Labour Party (ALP) had formed the twin-island state's government since 1946 when it won the first elections.

The ALP evolved from the political committee of the Antigua Trade and Labour Union (ATLU). It held all the seats in the National Assembly, making Antigua and Barbuda a virtual one-party state until 1971 when it lost to the opposition, the Progressive Labour Movement (PLM).

The ALP was returned to power in 1976 and has governed Antigua and Barbuda ever since, having won all the elections with the backing of the largest trade union movement. Prime Minister Vere Bird's family is prominent in the ALP and in Antigua's political life. Indeed one of his sons is the Deputy Prime Minister Lester Bird.

The relationship between Antigua and Barbuda has not always been easy. Barbuda enjoys a measure of autonomy. It is governed by a Council which receives budgetary allocations annually from the central government.

The twin-island state is a member of the Organisation of East Caribbean States (OECS) which has common facilities for Member States, for example, a common Central Bank and a common currency, the East Caribbean dollar.

## Restoration of heritage

Economically, Antigua has been fortunate in deciding as far back as the 1960s to restore its historical heritage which had fallen into ruins. Nelson's Dockyard has been brought back to life, refurbished with artefacts evocative of the Admiral and the period of his tenancy of the dock. (There is a museum in the grounds of the Dockyard).

Shirley Heights, the surrounding hills, including the historic buildings and ruins, are now areas of great attraction; and the whole of the



**Jolly beach**

*There are 365 beaches as beautiful as the one above in Antigua*

(1) Sir Christopher Codrington named the plantation, "Betty's Hope", after his daughter. The Government now plans to recreate the plantation on the original site as a tourist attraction.

(2) His brother, John Codrington, was also a successful sugarcane planter.



*The Nelson Museum, believed to be the actual house in which Admiral Horatio Nelson lived while he commanded the British fleet in the Caribbean*

English Harbour has become a hive of activities with yachts of all sizes and shapes mooring, careening, leaving or coming into the harbour. This bustle of naval activities culminates annually in the April/May Antigua Sailing Week, a regatta believed to be one of the 10 most popular in the world. With "a beach for every day of the year", as they say, Antigua has been well-positioned to take advantage of the boom in international tourism the world has seen in recent years.

## The growth of tourism

Now, tourism dominates the economy of this once agricultural country. Sugar has all but disappeared. The only reminders of the product are the 150 or more sugar mills that dot the landscape. Tourism accounts for 60% of Antigua and Barbuda's Gross National Product, 50% of employment (6420 people in direct employment in tourism in 1988) and nearly 50% of its foreign exchange earnings. Antigua has now the largest tourist sector in the Windward and Leeward Islands (35% of the total tourist trade of the Organisation of the East Caribbean States).

In 1981, stayover visitors to Antigua numbered 85 000. By 1984, the figure had risen to 129 000, and to nearly 177 000 in 1988. The United States is Antigua's largest source of visitors, although traffic from Europe is increasing rapidly. Less seasonal than before, the industry now extends

up to seven months, following the rescheduling of special events (like the Carnival), and the reduction of hotel rates during those periods.

The expansion of this sector cannot be explained solely by Antigua's naval past or by the fact that the Island is a sailing haven. The expansion is also the result of an intensified promotional campaign, accompanied equally by the expansion of facilities. For example, the Vere Bird International Airport has been extended and equipped to the point where it has become an important point for connection to international flights, particularly to other islands in the Caribbean. A jetty for cruise-ships has been constructed in St John, and close to it, a duty-free shopping complex (the Heritage Quay), which includes a casino, has also been established. The number of hotels of all classes has risen dramatically.

In 1988, gross receipts from stayover visitors totalled US\$ 124 million, while receipts from cruise-ship passengers amounted to US\$ 83 million, an increase of 36% over 1987.

Although tourism in Barbuda is not as developed as in Antigua, it is becoming more and more important in the island's economy, and efforts are being stepped up to promote it. Barbuda's utterly deserted beaches and abundance of game make it ideal for what tourism promoters call "a Robinson Crusoe-type of holiday". There are flight connections to the island, a couple of hotels and a hunting lodge.

Although figures are not yet available for the 1989/90 season, it is already clear that arrivals in Antigua have fallen substantially. This is due partly to the collapse of the major tour operator responsible for bringing in large numbers of visitors to the island, partly to trouble (strikes mainly) in the Eastern Airline which operates in the areas of the United States where Antigua is particularly popular as a holiday resort, and partly to Hurricane Hugo which, although affecting the island only slightly in 1989, did an enormous amount of damage in terms of bad publicity. There were signs, nevertheless, at the time of *The Courier's* visit this summer, of a recovery, with hotel bookings from several countries in Europe well up on the last season's.

In the long term, however, tourism in Antigua faces two major problems: firstly, the coastal areas, which are prime sites for hotel construction are already saturated and the price of land has shot up; secondly, Antigua has become an expensive destination. This is particularly worrying to the authorities at a time when Americans are choosing more and more to stay at home, going instead, for example, to states like Florida where there are attractions of all sorts, from nice beaches to Disney World.

In reaction to this, the authorities have held several meetings with the Hotel Association on ways and means of keeping prices reasonable. Indeed the government is currently evaluating the cost of operating a hotel in Antigua with a view to determining how best to assist, but it is at the same time putting on a brave face to the situation arguing that Antigua is an "up-market destination". Mrs Yvonne Maginley, Director-General of Tourism says: "The more I look at places like Cancun, the more I am happy that we are up-market, because there is no point in having thousands of people come to your country if they have no spending power. What we are concerned about from the government's point of view is that we give value for money; if the price is high then people should get value for what they are buying."

Meanwhile, the programme of improvement to facilities and attractions is continuing: more hotels are



being built; there are plans to extend and equip further the Vere Bird International Airport to handle the expected increase in traffic, following the introduction of Lufthansa flights from Europe and more BWIA flights from Canada; and historic ruins are earmarked for rehabilitation, including some of the sugar mills that dot the countryside. The latter are to be transformed mainly into shops, probably "duty-free" shops, a tour guide told *The Courier*.

But Antigua's real economic problem is not so much improvements to tourism facilities or the constraints on tourism as its over-reliance on the industry. Efforts at diversification have so far yielded little result.

## The outlook for agriculture

Agriculture accounts for only 12% of GNP, and it has long been hampered by soil depletion and periodic droughts. The country is not yet self-sufficient in food. Indeed food imports, for which the tourism industry is greatly responsible, constitute a heavy burden—an expenditure of about US\$ 80 million annually. Yet the potential is there, given modern technology, for meaningful agriculture to take root in the country.

First of all, land is available: the collapse of the sugar industry has left over 60% of the agricultural land in the hands of the government. And if, on the other hand, Barbuda served Sir Christopher well to produce food for his slaves, some argue, there is no reason why the island cannot become "the bread basket" of a country of only 80 000 people. The difficulty, of



**Yvonne Maginley,  
Director-General of Tourism**

times suffers from severe drought. Antigua understandably is looking forward to EEC assistance in this area.

The government's aim is to increase the production of fruit and vegetables, and, to this end, it has placed restrictions on imports to encourage local farmers.

On fruit, mangoes appear to have a great chance of being developed into an export crop. The trees currently grow wild, yielding fruit abundantly every season to meet local needs (Antiguans are big consumers of mangoes). Considerable quantities are sometimes left to rot on the ground.



*The latest of the many luxury hotels in Antigua*

course, is not unconnected with the relationship between Antigua and Barbuda, which, as already mentioned, has not been smooth. Furthermore, land distribution in Antigua is closely linked with internal politics and as such involves sometimes a cumbersome and frustrating process, with authority diffused between various ministries. Minister of Agriculture, Fisheries, Lands and Housing, Hilroy Humphries, told *The Courier*, though, that anyone who wants to farm has access to land. Theoretically that is. He would like to see all the lands currently under cashew trees brought under cultivation, but, he says, he will have to sell the idea first to his cabinet colleagues.

In terms of potential, the hilly nature of parts of Antigua means there is a need for the construction of dams not only to combat erosion, which is responsible for soil depletion, but also to capture water for irrigation in an island that is naturally dry and some-

Better organisation not only of the production, but also of the harvesting and marketing is badly needed. Pineapple is another fruit with export potential. At present, Antigua produces one variety, the sweet "Antigua Black" which has adapted well to the acid, volcanic soil. It is produced exclusively in Claremont Farms and is sold only in Antigua. Export is banned because output hardly meets domestic consumption (the import of pineapples is also banned). Yet production could be expanded. More farmers could be allowed to cultivate them.

A melon growing project, established exclusively for export a couple of years ago has proved successful. It remains to be seen whether expansion is viable and necessary.

Meanwhile, incentives are being provided to vegetable farmers. These include the provision of free planting materials to farmers of broccoli and cauliflowers. This facility is now being



**Hilroy Humphries  
Minister of Agriculture, Fisheries,  
Lands and Housing**

extended to producers of corn, beans and yams, although in their case they are expected to return the materials after harvest.

As a result of these incentives, output of vegetables has increased. "Now for eight months of the year," says Mr Humphries, "we can supply the entire country with onions. We can do so for six to seven months with cabbages and tomatoes. If we get more funds from the EEC to build more dams and do irrigation cheaply, I would say that we could become self-sufficient in certain crops within five years".

In addition to these efforts on fruit and vegetable production, a small amount of cotton is grown on a 400-acre plot of land, the output of which is now used domestically.

## Lack of knowledge in animal husbandry: a major constraint

Livestock rearing is an area Antigua had hoped to specialise in. Although the number of cattle on the island is significant, lack of knowledge in animal husbandry is hampering the expansion of the sector. Cattle, for example, are just allowed to roam unattended all over the island. The authorities are hoping to ask the EEC, which has already earmarked funds for the organisation of the industry, to provide funds also for the construction of an abattoir. This, they believe, is essential if the livestock industry is to take off in Antigua and Barbuda.

The fisheries sector, on the other hand, is now better organised than it was at independence. There is a Fish-

ermen's Association through which the government channels aid to fishermen (extension services mainly) and there is a Fishery Advisory Committee which regularly meets to identify the problems facing the industry.

Antigua is almost self-sufficient in fish. Most of its catch is landed and stored in the capital, St John. The government is currently seeking Japanese assistance in installing ice-plants in other locations on the island to facilitate storage and distribution in the countryside.

Mr Humphries' overall objective, as far as this sector is concerned, is to increase agriculture's contribution to the GNP from 12% to 40%—a tall order. "To achieve this," he explained, "we have to convince not so much the farmers, as my cabinet colleagues, of the fact that money should be pumped into agriculture. At present, between 70%, and 75% of funds earmarked for agriculture is spent on wages, leaving little for research and development."

## Industry constrained by high wages and lack of investment

If there is any sector where more money is now being spent, it is in industry. In fact, a new Ministry of Industry, Trade and Commerce was created recently, reflecting no doubt the government's intention to emphasise manufacturing in diversifying the economy. The industrial sector is small. It represents 14% of GNP. It is a sector that comprises construction, electricity and water, and manufacturing, and one which involves considerable import and re-export of goods.

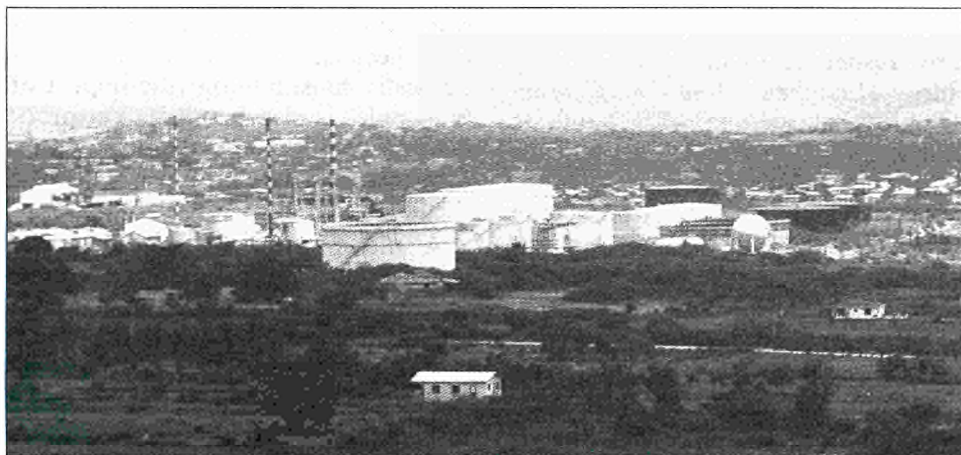
The expansion of tourism has been accompanied by a boom in construction not only in tourist facilities, but also in housing. Once involved in the import and refining of crude oil both for electricity generation and for export to neighbouring islands, Antigua's small refinery is now idle. The tanks though, are still used for storage of imported fuel—the latter continues to be re-exported to other islands.

Recently the authorities purchased a big power/desalination plant reportedly at a huge cost. Although the plant is already providing electricity, desalination has not yet begun, and this is causing considerable irritation in a country that suffers constant shortages of drinking water.

Manufacturing, on the other hand, grew relatively well after independence, at an average 6% per annum between 1981 and 1986. It fell to 4% in 1987 and by 1989 was down to only 2%, mainly as a result of the closure of a major clothing factory and substantial falls in the output of paper manufacturing as well as stoves and refrigerator assembly.

The high cost of production, attributable to high wages, has made a number of factories unprofitable to run and this is acting very much as a disincentive to foreign investment. Furthermore, there are serious shortages of labour not only in manufacturing but also in tourism, agriculture and construction—shortages which have led to reliance on the labour of "guest workers" from other islands, and from as far away as Italy.

Despite these constraints, Minister of Industry, Trade and Commerce, Hugh Marshall, is confident of being able to attract foreign investment to Antigua, which he hopes to turn into the "Hong Kong of the Caribbean". He has already persuaded the government to accept the creation of a Free Zone which he feels will be a powerful incentive. The Minister told *The Courier*, however, that while he would welcome investment in any area, his ministry is emphasising the establishment of "agro-based industries and engineering", i.e., "outfits for reconditioning of vehicle parts... because there is a market for such



*Antigua's idle oil refinery whose tanks are used for storage of imported oil, some of which is re-exported*



*The main street of St John, the capital, where half of the country's population live*

items in the Caribbean," (See interview on page 36). But there is one important prerequisite: Antigua has to get rid of the image of corruption which has been tagged on it since independence following the series of scandals of international proportion that have broken out there—the most recent involving arms smuggling to Colombian drug cartels.

In the absence of an indigenous entrepreneurial class, the government has been the economic motor of this twin-island state. It comes as no surprise that it has more assets proportionally speaking—than any country in the Caribbean, even on the basis of per capita. It is still extending its tentacles into the economy, spending huge sums of borrowed money on projects, mostly on luxury hotels.

Given Antigua's debt burden of some US\$ 260 million, the government is being urged to privatise. But this will not be easy (see interviews with the Ministers of Finance and of Industry, Trade and Commerce pages 34-37)

The country has had consistent overall balance of payment deficits since 1984, worsening from US\$ 400 000 to over US\$ 25 million in 1988. It has had, at the same time, budget deficits of EC\$ 19.6 million in

1984, EC\$ 7.3 m in 1985, EC\$ 318.3 m in 1986, EC\$ 145.9 m in 1987 and EC\$ 92.1 m in 1988. Although grants from overseas reduced those deficits slightly, they were financed mainly through external and domestic borrowing, and in a way, by accumulation of repayment of arrears, which have risen from EC\$ 20.1 million in 1984 to EC\$ 70.1 m in 1988. Debt servicing represents 17% of the recurrent expenditure, a heavy burden which is increasingly taking its toll on the country's contributions to international organisations. Constant default on this led the Deputy Prime Minister, Lester Bird, to warn recently of the possibility that Antigua and Barbuda may have to withdraw from a number of organisations.

Some sources indicate that economic growth, which was 7.6% in 1988, declined to around 4% in 1989. It is likely to fall further this year as tighter control over expenditure becomes inevitable.

The sad fact, however, is that in Antigua, public sector wages are very high, wages that bear no relation to productivity. (Absenteeism in the small civil service is high). In other words, the high standard of living being enjoyed by Antiguan today has no basis in production. But as Minister

of Finance, John St Luce put it in his 1990 budget speech: "We simply cannot afford any inordinate escalation of the Government's payroll at least in the near term. Our policy must be to achieve a lean, efficient and productive workforce where managers, supervisors and other workers are all held accountable for their performance. With such a workforce, I am confident that we can reduce the ratio of labour expenses to revenue and at the same time improve the quality of services to the general public."

Limits to wage increases will not be easy, much less having a "lean workforce" in a country where the trade unions wield considerable influence. The only option in the short term appears to be cuts in spending on capital projects. In the long run, the highly compartmentalised civil service will have to be reformed not only for the sake of manpower efficiency, reduction of bureaucracy and duplications, and of the accountability to which St John Luce refers, but also for the sake of improvement in revenue collection. The Vere Bird International Airport and the Public Utilities Authorities are two cases in point where services are run by separate independent authorities—services that could be run by just one body. ◊

Augustine OYOWE

## Avoiding waste and managing resources better

— An interview with John ST LUCE,  
Minister of Finance —

*Finance Minister, John St Luce, is a widely respected politician in Antigua. In this interview, he explains how the government is approaching Antigua's growing financial difficulties.*

► *Tighter control over expenditure is believed vital not only to combat inflation, but also to enable the Government to meet its external debt obligations. Has the Government taken this on board?*

— Yes. We are very concerned, particularly in the Ministry of Finance. To be frank, what's lacking here, is sufficient coordination between the ministries. You find, sometimes, a certain amount of duplication of effort. Let me give you a very simple example: You have a burst pipe, say, on one of our main roads. Our Public Utilities Authority will dig up that road to repair the pipe and the Public Works are not informed so that they do not send people to that spot to do repair works. Or that the road may be newly constructed, and then they decide to lay new pipes after the construction has been done: they have to go and dig up the road and cover it over again. So there is need for more coordination. To give you another simple example. The question of public transport—the Government owns the vehicles which collect workers from different points in the rural areas. You could bring about better savings, better utilisation of existing vehicles, instead of each department having its own vehicle, when quite often one or two vehicles could service several areas. Take the Coolidge area, for example, where we have our international airport. We have different types of workers there. You have the airport staff, you have Customs, you have the Meteorological people. They all have their own transportation, different buses. You have the technical

training school in that area too. Each area of government has its own buses. Now, in my view, two buses running on a schedule could service every department up there in terms of transporting personnel. But, you know, the ministries do not want to relinquish that privilege.

► *Isn't it rather surprising for a civil service as small as you have here in Antigua, that such duplications should exist?*

— It shouldn't surprise you, bureaucracy is bureaucracy, whether it is in a small or big country (I lived in Britain for seven years.). It's the same everywhere. We all come back and hope we can tidy things up. We have been able to bring about some curtailments. Where I think we are weak, though, is management. Many of our civil servants have come up through the system—the normal thing, start out as a junior clerk and after many years, rise through the system. Now I'm not knocking that. We need more training for our senior civil servants in management. I think this is where we are very badly lacking. The businessman training his managers as well.

Our civil servants are not taught to manage. Theirs is paper shuffling, book work: folders come in, they write neatly in them and back they go. You get no production at all. If you want a letter to go somewhere, it has to go back downstairs, and takes two or three days to leave the building. We need to be more efficient.

► *Debt servicing accounts for a great deal of your continuing budget*



*deficits. What exactly is your relationship with your creditors?*

— First of all, as you know, we have a fairly sizeable external debt. We estimate it at about \$ 260 million. We have been able to get some rescheduling done of a good chunk of these debts, particularly as relates to our statutory body, the Antigua Public Utilities Authority. With the salt and power combination plant which is the first real Japanese debt, we've had that rescheduled, and we are now servicing it on that basis. The Halcyon Cove hotel debt has been rescheduled, and we are now paying that as well. There are other debts which we have also been servicing; the Export/Import Bank one for example. There are still one or two debts where we have not yet finalised the rescheduling. We have the firm of Morgan Grenfell of Britain assisting us—up to a point, that is.

► *And your relationship with the IMF?*

— Well, they do their annual review each year, but we've never asked them for any help. We haven't had to go to them as yet. To be frank, what I've seen them do to other Third World countries, I've never been too happy. They come with their economic theories about devaluing your currency and things like that, and I've not seen that help any country anywhere. As a matter of fact, quite often their remedies are recipes for disaster; there aren't many Third World countries where their advice has brought about the desired turn-around in the economy. And I'm sure you, as a Third World citizen, can confirm that.

► *It is believed that the Government will have to divest itself of its assets, particularly in tourism, if it is to overcome its financial problems and expand the private sector.*

— We have made a conscious decision to do something along those lines. There is a history, a reason for the government having so many assets. In a small country like ours, and indeed in big African countries too, very few of the locals have had enough capital to get involved in the main industries in a big way. For example, tourism is our big industry, not just hotels, but all the related activities. Now, how many of our nationals had the capital necessary to develop the sector? Few or none. So we have had to attract foreigners and the Government has had to perform a catalytic role. We ourselves have had to get involved in hotel construction: we built the Halcyon Cove hotel, the Royal Antigua hotel, two of the best hotels anywhere around. Now the thing is, we have given them out on management contracts and this is not working out properly. The idea is to sell them (we hope to sell particularly the Royal Antigua hotel which is a first class hotel). And so, the proceeds will then reduce the debt of those hotels. But the problem is finding the right kind of buyer. Everybody wants to buy, but they want to pay over a million years. We want a buyer who will either take over the debt fully immediately or pay cash up front right now. However, we have agreed to diversify. In the case of our public utilities (I must say there is a division in the Government on this), by public utilities I mean water, electricity and telephone services, these can be treated differently but it is complicated. Now water, to be quite frank, is not a paying thing, because half the water distributed is free through stand-pipes as you find in most Third World countries. The other half is metered, so water is a service. So what you find is that the telephone, which makes a lot of money, is subsidising, to a large extent, some of our water and electricity services. For example, how do you pay for street lights? We have not devised a way, the Government is supposed to subsidise that, because we must have street lights, we must have stand-pipe



**The shopping complex, Heritage Quay, built by the Government for tourists**  
*"We have had to attract foreigners and the Government has had to perform a catalytic role"*

water for those who can't afford to have water brought to their homes.

► *Wages are very high in Antigua, much too high, some say. I understand a Government committee has been set up to look into the harmonisation of prices and wages?*

— This is the danger we are facing—that of pricing ourselves out of the market. Even with the tourists, we have to watch it. Antigua is not the only place with lovely beaches and friendly faces; the other islands have the same thing. I don't want to hit our unions, but wages are high, although there are other factors that have helped to push up the cost of a stay in Antigua. For less, you can go to Mexico and have a very cheap holiday. America is much cheaper than here. But again, I think that these small islands offer something unique: our climate, the friendliness of the people, and the fact that you haven't got these masses of people, as you'll find, say, in Mexico. Here you have a couple of hundred or so tourists in one hotel. And I think there are many who prefer that sort of thing. Crime is not a major problem here. A tourist can walk around at 2 o'clock in the morning, and nobody is going to knock him on the head. We are a fairly peaceful country in that sense.

► *But how will you deal with the trade unions and their wage demands?*

— That is a problem. Two of the major trade unions in the country are the bases of the two political parties, so every industrial problem quickly becomes a political one. The oldest trade union is 51 years old, is the basis of my party, older than me, and the opposition trade union, the Antigua Workers' Union, is the basis of the UNDP (United National Democratic Party). So there is a danger there, because the unions, in order to secure political support, have to be very dynamic. A union must exert pressure on their employer or employers to get the maximum out of them, in terms of wages, in terms of benefits, better conditions and so on, and we are not opposed to that. But what we are saying is that the unions also have a role to play in trying to relate wage increases to increases in productivity. And this is the problem with Antigua, not only in the government or public sector, but also in the private sector. We have got to get our people to understand that, if we have to pay more money, we want to match that with an increase in productivity, otherwise inflation is going to increase at an even faster rate which will be a disaster for everybody.

Interview by A.O.

## “I am more concerned about agro-based industries and about engineering”,

says Hugh MARSHALL,  
Minister of Industry, Trade and Commerce



*Some observers of the Antiguan economic scene rate the country's chances of industrial expansion at zero. But Hugh Marshall, Minister of the newly-created Ministry of Industry, Trade and Commerce thinks otherwise. He explores the possibilities in this interview.*

► *What are the prospects for private investment in Antigua and what areas offer the greatest opportunities?*

— Private investment has always been a great priority for this country. Even when the industrial sector grew and made a much larger contribution to GNP, it did so through private investment. But government at the beginning had to do what we call ‘prime the pump’. We had to get in and do the infrastructure, build industrial parks which called for a lot of capital investment: putting down factory shells, building roads, putting in utilities, etc. We’ve decided to move away from that, and so we have designed a strategy.

First of all, the existing facility at the Coolidge is what we are using to meet the needs of the indigenous or regional investors, who are, to some extent, endowed with small but reasonable capital. They are primarily catering for the OECS and the CARICOM markets. In terms of attracting investment to enable us to enter into the EEC, the US, and Canadian markets under the various duty-free agreements which we have with those countries, we have considered the introduction of a Free Zone to be perhaps the most attractive mechanism for getting in the kind of investment which has greater longevity. So, Free Zone legislation, we hope, will go to parliament sometime

this year. I was hoping we would have had it in parliament by now, but the ministry has not yet concluded the study of a draft. We have identified an area of land, which was originally leased to the US, about 60 to 70 acres to be given over entirely for private sector development.

► *You’ve talked about the United States, the Canadian and CARICOM markets. You clearly neither have the capacity to exploit them nor the means to overcome the obstacles, to the garment industry, for example. Why don’t you limit your ambition to the OECS?*

— No. I am not hot on garments nor am I hot on electronics. These are areas where I don’t really think we can compete with the Asiatic “tigers”. There are talks now taking place between Mexico and the US which involve a new free trade area for Canada, United States and Mexico. This probably will also involve Brazil. The whole question of competition in terms of wage structure, in terms of work ethics, the productivity of workers, we’re not in any competition. This does not apply only to Antigua, but to the Caribbean as well. And I think we had better begin to accept that.

I will not turn away a garment industry, but if I have to go out and look for garment industries, I am going for garments of the upmarket;

that’s the area of the garment industry I’m going for. The reasons are obvious: the upmarket garment does not demand a high production line because there is a lot more skillful work required for it, and therefore, has greater longevity. The people in the upper end of the market change fashion all the time. The people with low budgets, in the lower end of the market, are the ones who normally provide problems.

### Joint policy with the Ministry of Agriculture

What I want to do, and we have had some talks already—is to hammer out a joint policy with the Ministry of Agriculture, in terms of agricultural production, and marketing of those products.

In the short to medium term, I believe that we can earn a lot more in terms of exports of a small list of certain agricultural products to the winter markets of Europe and North America. When the frost or snow is on the ground, people in those parts of the world probably eat more from my experience, than during the summer; they need vegetables and fruits. We can produce at least vegetables. We already have outlets in Canada and many more outlets in Europe for our melons. That is indicative of what we can do, and I think we need to specialise in that area.

In terms of industry, I am more concerned about agro-based industries, and about engineering. Now, let me explain what I mean by engineering. The Caribbean is a good market for reconditioned vehicle parts, and I think we can do that—the reconditioning of vehicle tyres, brakes, clutches and that type of thing, and it provides meaningful employment for the skills of our young people. It will make them feel that they are really doing something, that they have skills, that they can go anywhere else in the world, if they wish, to exercise those skills. I don't think that our people are prepared to sit in a disciplined way on a conveyor belt to work on garments. They have proved that they are not that disciplined. That is a fact, and I don't think that, in my lifetime, that discipline will be drilled into them. So we may end up being buyers of garments. The other thing is that garments are a very fragile industry. When designers in Paris, Milan and London (Chelsea), in New York (Fifth Avenue) take a decision, if that decision does not harmonise with what has been done on the factory floor, it can affect the lives of the workers. So I don't want to leave it to the fashion designers who come up with all sorts of crazy ideas whether the skirts should be knee-high or whether they should be ankle length.

## The Free Zone concept

► *What are the prospects for offshore business here in Antigua?*

— The prospects for offshore business are excellent because we have the enabling legislation. We have the offshore legislation which is in place, and we have a number of offshore companies which have already registered in Antigua—and are doing business elsewhere. But that type of business does not bring the trickle-down effect to the economy that one would expect it to have. What we are planning to do, as far as the offshore companies, particularly offshore banks, are concerned (we are asking the Cabinet to examine the possibility of including that in the legislation for the establishment of the Free Zone), is to allow them to physically establish themselves

within the Free Zone, because I think it provides greater monitoring for us in the light of what is happening in the world in terms of the laundering of money. It also provides us with an opportunity, because of the varying mechanisms of trickle down effects on the economy: it will allow some of the benefits to flow back into the economy, if we were to have them physically set up here rather than them just having a sign out up on a solicitor's shingle saying that company x,y,z offshore bank is registered here. The Government gets nothing but the licencing fee for that. And I think we need to have greater benefit than that.

The other thing is, we feel that if you have meaningful investment in the Free Zone, and it requires capital for the establishment of companies within the Free Zone, those companies could make some rather elaborate call on the small savings within the country in the commercial banks. But if you allow the offshore banks with massive capital within the Free Zone, to lend within the Free Zone, then it would free up the savings and deposits in the commercial banks in the high street, where the average man can go and borrow his money. So, you wouldn't have a depletion of those savings. These are some of the considerations we are giving to the legislation.

► *The World Bank has suggested Antigua divests itself of its relatively huge assets. Do you subscribe to this?*

— I subscribe to the whole question of privatisation, but I don't necessarily want to privatise following the British model! The privatisation that I would subscribe to must involve, to a large extent, my people owning shares in these corporations. Now, I believe when the World Bank speaks of privatisation, it means ownership by remote control, and I don't go in for that. We have come through a history of slavery and of colonialism. We came from an economy, which was a mono-economy, dependent on agriculture (sugar mainly). The mothers and fathers in this country have toiled and sent their children to school; many of them have gone to universities all over the world. They have come

back. What does the World Bank expect me to do with them? Leave them to go back into cane-fields to provide sugar for whom? I want them to become the new owners of business in this country. Therefore, privatisation, while in its broad concept is supported by my Government, has to be fine-tuned to the needs of my people. So, a careful study of the route to privatisation has to take place. Rather than go for full privatisation now, we would like to do that over a period of time where both the Government and the people co-exist in ownership.

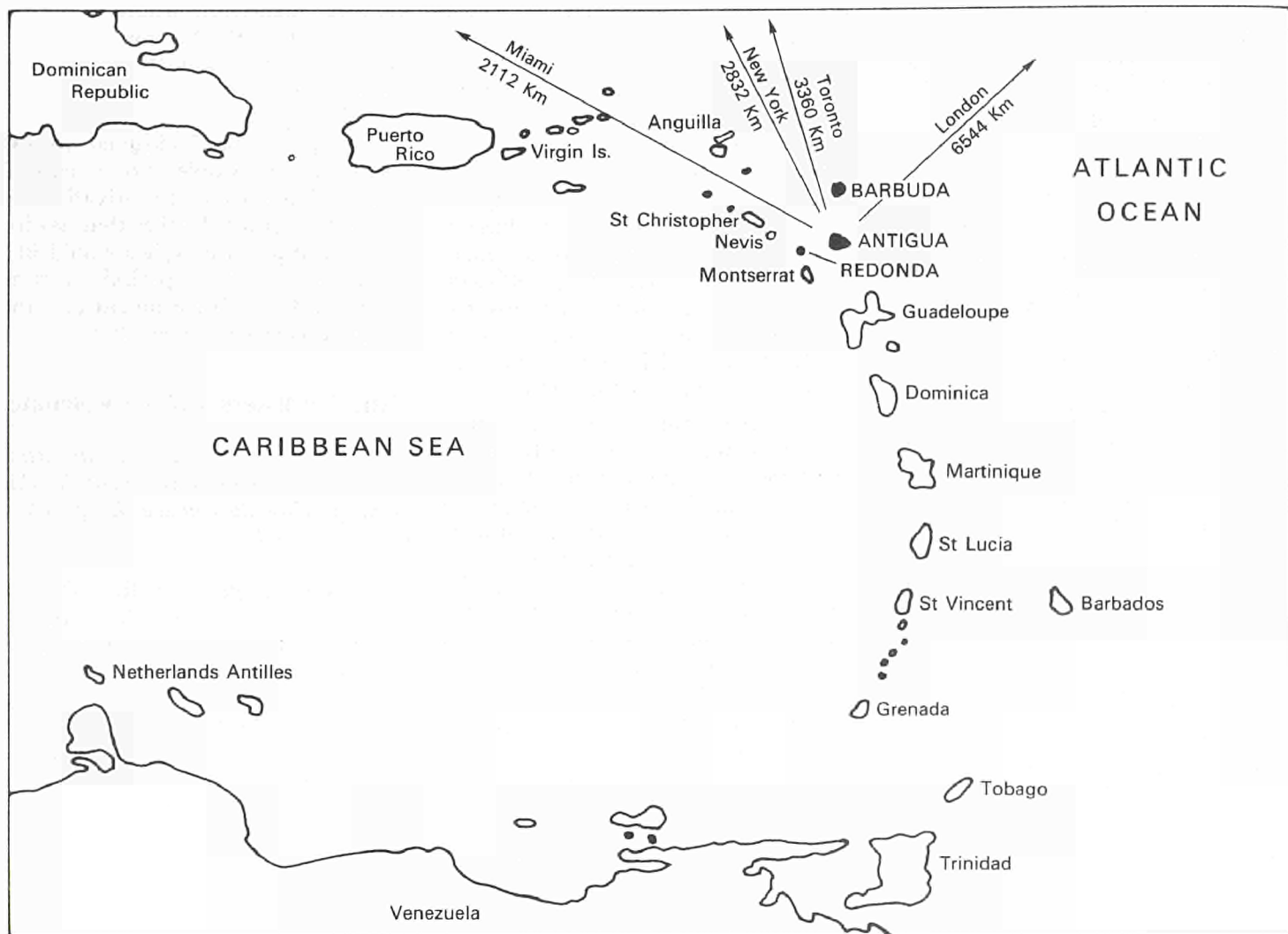
## Guest workers will be welcome

► *High wages are a great disincentive to foreign investment in this country. How do you see this problem being resolved?*

— High wages are the obvious result of the level of development which has taken place in this country. We have a very small population, and so a very small working population. And I think that the only solution which is practicable and which we could apply, is to have guest workers when they are required. Britain did it. I went to Britain, I met a lot of my black African brothers in Britain. We all worked in menial tasks. Americans have done it: people from Eastern Europe of varying experience and expertise have gone to America and helped develop America. A lot of Antiguan are in St Thomas, in the US Virgin Islands. They'll help to build St Thomas. So, when we need the workforce, I don't think we will have any difficulty. I think we have demonstrated that in the past, at least at some of the factories that we had here (when things were much more vibrant in the industrial sector, owing mainly to the high absorptive capacity of workers in tourism). We had a shortage of the indigenous workforce, in the agricultural sector as well. What happened was that we had workers come in, as guest workers, from the Dominican Republic. When the factory closed, they went back home. There were about 200 of them working in the canning factory.

Interview by A.O.

## Antigua and Barbuda in brief



### Area, Geography and Population:

Antigua has an area of 280 sq km, lies 2112 km south-east of Miami and 6544 km south-west of London. It has a population of 78 500. Barbuda, which has an area of 161 sqkm, lies 48 km north of Antigua. It has a population of 1500. On a clear day one can see Guadeloupe, Montserrat, St Kitts and Nevis from Antigua.

**Population growth (1988):** 0.93 %

**Capital:** St John

**History:** The island of Antigua was so-named by Christopher Columbus in 1493 when he came across it during his second voyage to America. The name was in honour of the Saint at Seville Cathedral—Santa Maria della Antigua. First inhabited by Arawak Indians (Siboney), then briefly by the Caribs, English settlers arrived on the island in 1627. For the next 180 years the island became an important naval

base for the British. Admiral Horatio Nelson used the island's safe natural harbour. Barbuda was taken over by the British in 1625.

**Government:** Multi-party democracy dominated, however, by the Antigua Labour Party, ALP, which has governed since independence in November 1981. Queen Elizabeth II of the United Kingdom is Head of State. She is represented by a Governor General. There are two Houses of Parliament: the House of Representatives with 17 members, elected every five years and the Senate whose members (also 17 in number) are nominated by the Governor General on the advice of the Prime Minister and the leader of the Opposition.

**Currency:** East Caribbean dollar (EC\$) US\$1 = EC\$ 2.7; ECU1 = EC\$ 3.55

**Mainstays of the economy:** Tourism, light manufacturing and agriculture.

**Imports:** Petroleum products, food, machinery and equipment, manufactured goods.

**Exports and re-exports:** Food, live animals, light manufactures, chemicals, petroleum products.

**Total exports (as % of GNP, 1988):** 9.4 %.

**Domestic exports (as % of GNP, 1988):** 2.8 %.

**Re-exports (as % of GNP, 1988):** 6.6 %.

**Overall balance of payments (1988):** EC\$ 25.1 million.

**Gross National Product (at factor cost 1988):** EC\$ 737.6 million.

**GNP per capita (1988):** EC\$ 9220 or US\$ 3414.

**Foreign debt (1989):** EC\$ 260 million.



## Antigua and Barbuda- EEC cooperation

### Impact of EDF-funded projects

by Eden WESTON (\*)

The Government of Antigua and Barbuda has benefited from grant funding under the EDF programmes under Lomé I, II and III; these grants were received during the decade of the 1980s.

During that period, the Government of Antigua and Barbuda was pursuing a development policy which placed tourism as the main area of economic activity; emphasis was also given to the development of the agricultural and manufacturing sector to expand the productive base of the economy as well as develop linkages between these major areas of the economy. It is a policy that will be continued into the 1990s.

Every encouragement is being given by the Government to private entrepreneurs whether local or foreign, to undertake investment activities in these areas. On the other hand, Government recognised that its major role was to create the right climate that is conducive to fostering private sector investment. Hence the attention given by Government to improve and upgrade existing economic infrastructural facilities such as roads, power generation, water resource development, telephone expansion, port and airport development.

Funding for these infrastructural projects was provided by external agencies. The EDF through Lomé provided a significant level of grant funding which was utilised in the execution of a number of projects. Lomé funds were used to implement projects such as water distribution, livestock development and road repair and rehabilitation. As we enter the decade of the 1990s, human resource development is now emerging as a critical factor in promoting

and sustaining growth and development. Under the present Lomé IV, funds will be used in this area mainly for the training of personnel for work in the hotel industry at all levels of skills.

In addition, Lomé funds have financed a number of tourism promotion projects, training of personnel, and our participation in trade fairs and tourism promotion fairs. Thus EDF funds were utilised on projects that were in keeping with our priority areas for the development of the economy. The impact on the local economy has been significant.

The rehabilitation of our major highways which received the greatest proportion of Lomé grants came about at a time when ground transport had increased tremendously because of expansion in tourism—especially in the cruise ship segment—construction activity and the distributive trades. These activities were facil-

itated greatly by the improved road network.

The Lomé-funded livestock project has resulted in a marked improvement in animal care and husbandry; the importance of proper pasturage was also amply demonstrated and accepted by local livestock farmers. This has resulted in the development of improved herds of cattle on the island.

Therefore by facilitating improvement to our infrastructural facilities and by providing assistance in tourism, agriculture and trade, the EDF funding under the Lomé programmes contributed significantly to the high growth rate attained in the economy during the decade of the 1980s; in this period real growth averaged 8%, unemployment was virtually non-existent and per capita income had risen to approximately US\$ 3 000.

With respect to the future, the Lomé programme will continue to impact favourably on the growth and development of the Antiguan economy. During the 1990s attention will be especially focused on the development of our human resources with special reference to the role of women in development. This theme is in harmony with the objectives of Lomé and so we look forward to a continued fruitful partnership with the EDF as we strive to realise our goals and objectives. ○ E.W.



*"The Lomé-funded livestock project has resulted in a marked improvement in animal care and husbandry; the importance of proper pasturage was also amply demonstrated and accepted by local livestock farmers."*

(\*) Director of Economic Planning in the Ministry of Economic Development in Antigua and Barbuda.

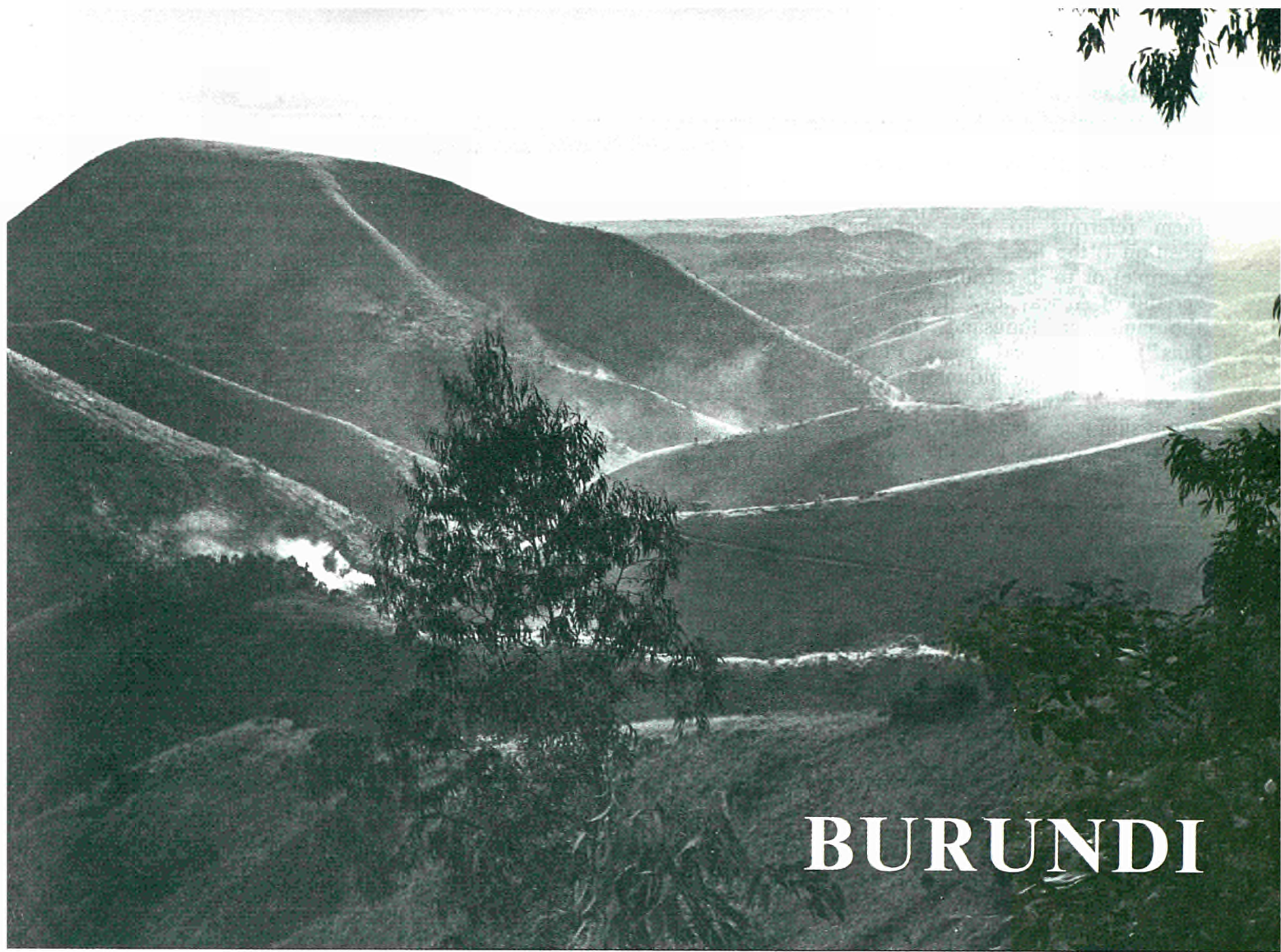
# ANTIGUA AND BARBUDA

## Antigua and Barbuda EDF financing under Lomé I, II and III

(Situation as at 31 December 1989)

Project title	Financing decision	Allocation (ECU)	Committed (ECU)	Paid (ECU)	Balance (ECU)	Committed (%)	Paid (%)
<b>1. FOURTH EDF / LOME I</b>							
<b>National Indicative Programme</b>							
Study Creekside dam	12/12/77	119 476	119 476	119 476	0	100	100
North Shore water	14/08/78	494 500	494 500	494 500	0	100	100
Study livestock development	15/10/84	110 000	110 000	110 000	0	100	100
Road rehabilitation programme	24/10/85	1 558 000	1 558 000	1 558 000	0	100	100
Road rehabilitation programme	24/10/85	755 362	755 362	755 362	0	100	100
Livestock development project	12/12/86	20 000	50 000	23 062	26 938	100	46
Unallocated balance		65 162	0	0	65 162	0	0
Total		3 152 500	3 087 338	3 060 400	92 100	98	97
<b>2. FIFTH EDF / LOMÉ II</b>							
<b>National Indicative Programme</b>							
Study road rehabilitation	03/04/84	60 000	60 000	60 000	0	100	100
Road rehabilitation programme	24/10/85	786 500	786 500	786 500	0	100	100
Livestock development project	12/12/86	1 640 000	831 000	497 771	1 142 229	51	30
Livestock development project	12/12/86	213 500	213 500	0	213 500	100	0
Trade Fairs - ITIX	30/03/88	11 675	11 675	11 675	0	100	100
Unallocated Resources		(11 675)	0	0	(11 675)	0	0
Sub-total		2 700 000	1 902 675	1 355 946	1 344 054	70	50
<b>Emergency Aid</b>							
Drought relief	17/05/84	88 989	88 989	88 989	0	100	100
Total		2 788 989	1 991 664	1 444 934	1 344 054	71	52
<b>3. SIXTH EDF / LOMÉ III</b>							
<b>National Indicative Programme</b>							
Study road project	26/02/88	175 000	0	0	175 000	0	0
Trade fairs - OECS Expo	11/10/88	10 000	10 000	0	10 000	100	0
Trade Fairs - Madrid & Paris	23/01/89	28 000	28 000	9 269	18 731	100	33
Statistics adviser	03/02/89	140 000	110 000	81 483	58 517	79	58
Unallocated balance		4 147 000	0	0	4 147 000	0	0
Sub-total		4 500 000	148 000	90 752	4 409 248	3	2
<b>European Investment Bank</b>							
Risk capital		1 500 000	0	0	1 500 000	0	0
Sub-total		4 500 000	148 000	90 752	4 409 248	3	2
<b>European Investment Bank</b>							
Risk capital		1 500 000	0	0	1 500 000	0	0
Sub-total		1 500 000	0	0	1 500 000	0	0
Total		6 000 000	148 000	90 752	5 909 248	2	2
Grand total		11 941 489	5 227 002	4 596 087	7 345 402	44	38

Source: EEC Delegation Office, St John, Antigua.



Vivant Univers

# BURUNDI

## National Unity, the gate-way to development

*“The challenge is posed in terms of the survival of the Burundian nation, no more no less, and it has to be won.” So says the report of the Commission on National Unity, showing what the stakes really are in this vital question of Burundi’s future. For, it maintains, although National Unity, based on cultural homogeneity, lasted for centuries, the last few generations of Burundians have had to cope with ethnic and regional divisions leading not only to coups d’état, but above all to a whole series of events, each one more bloody than the last, the most recent of which was only in August 1988. Burundi no longer tries to hide the fact that tragedies of this sort are shameful episodes, but it has another appointment with history now and this time it will be for reconciliation and harmony regained. Since 1987, when the Third Republic emerged under the aegis of Major Pierre Buyoya, the taboos traditionally surrounding tribal conflict, regionalism, shady dealing and nepotism have gradually been lifted. And contrary to what some people perhaps*

*hoped, the events of August 1988 merely strengthened the authorities’ conviction that the debate had to be taken to its limits. Burundi has taken up this challenge and is working along two main lines, currently parallel but destined to merge, towards unity and development. It is a small nation, landlocked in the heart of Africa and economically dominated by coffee, and it is clearly prey to the waning fortunes of this product on the world market. And it is in the throes of structural adjustment — although it has its own way of going about this too, without jeopardising social achievements in such sensitive areas as health and education.*

*Demographic growth is nearly as big a challenge as National Unity. Burundi still manages to feed itself without calling on food aid, but the balance between ever-expanding demand and precarious arable land will be hard to maintain. The land of a thousand hills may not have a thousand problems, but it has to prove that it can tackle those which it has nonetheless.*

## The mountains of the moon

Burundi has many names, most of them referring to its geographical position ("the heart of Africa", for example) or to its terrain ("the Switzerland of Africa" or "the land of a thousand, or thousand and one, hills"). In classical times, Ptolemy talked about "the mountains of the moon". If this somewhat poetic expression was intended to stress both the typical beauty and the inaccessibility of the scenery, one can only agree, for the physical attraction of this country is undeniable. Its tropical climate is generally tempered by altitudes of 774-2670 m. And sharp relief combined with a landlocked position in the heart of Africa were once advantages which helped forge cultural unity and preserve sovereignty against foreign domination — and the incursion of the slave traders from Zanzibar.

Burundi's 27 834 km<sup>2</sup> are far from having the wealth of Switzerland, but with their combination of plains and peaks and highlands and lowlands threaded with waterways and lakes, the two countries are in fact similar. Burundi, of course, has the southernmost source of the Nile, once the goal of a handful of explorers as renowned as Stanley and Livingstone, which bubbles out of the earth near Rutova and changes its name many times before it ultimately becomes the famous river which flows into the Mediterranean 6700 km further on. Discerning tourists marvel at the small inland lakes in the north and there is the country's 150 km shore on Lake Tanganyika, a veritable inland sea (800 km long by almost 50 km wide, 32 000 km<sup>2</sup> in area and 782 metres above sea level, with a maximum depth of 1435 m, second only to Lake Baikal), whose importance in key sectors such as transport and fishing make it an undeniable asset.

## The civilisation of the hills

Burundi has 5.4 million inhabitants and shares the African population density record—207 people per km<sup>2</sup>—with neighbouring Rwanda. Although there is perhaps an unfortunate tendency to talk about the population in terms of the three tribes that make it up (the Hutu, the Tutsi and the Twa), the authorities are now anxious to

stress what unites rather than divides them and one sure link is the rich past during which they forged the Burundian nation. Ptolemy made what was probably the first mention of the country, which was being referred to as a nation by the 15th century and a structured monarchy afterwards. So it was no colonial creation and it was not until the end of the 19th century that it was reached by the first European explorers. And it was only in 1903 that Burundi became a German protectorate attached to German East Africa, before coming under Belgian



Vivant Univers

*Burundi is one of the most densely populated countries of Africa*

administration when the League of Nations' post-World War I mandate came to an end.

A second basis for National Unity is, of course, the cultural homogeneity attendant on the national language, Kirundi. And then, obviously, there is the civilisation of the hills, where Burundians have always lived in unchanging conditions, intermingled and frequently united by blood ties through inter-tribal marriage.

## Twenty-four wise men

The National Unity Commission has investigated and analysed these bases in depth "to try and bring out and explain the phenomena which have often interfered with Unity and to make recommendations for its consolidation", as the final report makes

clear. This Commission, which has members from every tribe, region socio-professional sector and faith was set up in the autumn of 1988 shortly after the tragedy of Ntega and Marangara — yet another bout of bloodshed in which thousands of Burundians died and tens of thousands fled to safer areas. What the Third Republic, led by Major Pierre Buyoya (who came to power in September 1987), has to do is try and put an end to this vicious circle of blood: inter-tribal fighting once and for all. A better tribally balanced Government has been set up with a Hutu Adrien Sibomana (see interview on pages 54 to 56), as Prime Minister and an effort has been made to create the right conditions for the repatriation of refugees, most of whom have now returned — positive proof that the climate has changed. People are preaching openness and putting it into practice. "The problem has to be discussed and the population has to be put in the picture about unity and reconciliation."

"Discussing the problem" is certainly what the Commission of 24 wise men went in for, as they spent seven months diagnosing what was wrong and looking for lasting solutions. On 13 May 1989, they submitted their report. It went right to the heart of the matter. "Burundi's divisions are rooted in the management of the colonial era", the member maintained, in a forthright denunciation of the virus of tribalism and its disastrous mode of operation. And their several recommendations of consolidating National Unity, inter alia through the drawing-up of a Charter of National Unity, a subsequent job for the Commission, led to a draft Charter being presented for public discussion in April. This was described by the President as "a milestone along the way to normal political life" and "the foundation of democracy". It has been the subject of discussion in the farthest corners of the country since May.

One of the 24 wise men, Donatien Bihute, former Vice-President of the ADB and now a private banker, said that "the achievements of the past couple of years have really given hope to us all. The discussions have been a kind of collective therapy and very relaxed and constructive compared to

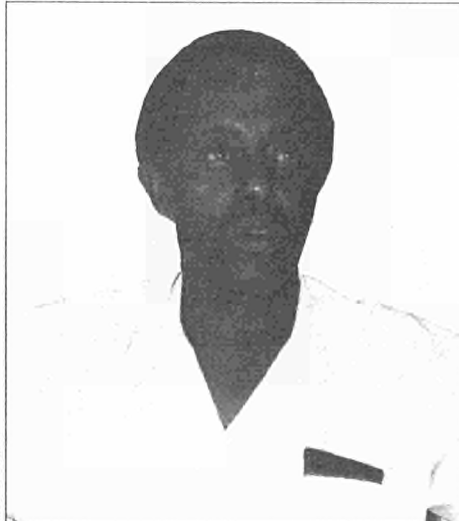
the head-in-the-sand policy we had before". It was not a question of negotiations between Hutu and Tutsi, he felt, but an unruffled debate in a united body. For everyone had the same ideal. And "many of the problems are based on misleading labelling, which in itself will mean that they can gradually be ironed out".

A dynamic movement towards democracy has also got under way. Everyone will have the opportunity to say what he thinks about the draft Charter of National Unity, which will then be discussed at an extraordinary Congress of the UPRONA Party at the end of the year. There is still only one party, but "maybe the situation will have to relax a little more to avoid any multiparty system automatically bringing negative solidarity—i.e. tribal-based political parties—in its wake", Bihute said, while adding: "When the time is ripe, the Burundians will make an independent choice". Meanwhile, the country is to have new institutions, with the Committee of National Salvation, which is currently in power, being replaced by a Central Party Committee. Within two months of being adopted by the Congress, the Charter of Unity will be put to a referendum and this will be followed by the establishment of a Constitutional Commission (more wise men) which will come up with a draft constitution. The thread running through all this, the President says, is the idea that "only a democracy founded on Unity can withstand the destructive forces of division".

**Major constraints**

But the Congress will not just be adopting a Charter of Unity, for it will also be presented with another, equally important document currently being drawn up by the Economic and Social Council — the Development Charter. These two notions, development and unity, are an inseparable contribution to the country's future.

Economically speaking, Burundi, with a per capita GNP of around US\$ 200, clearly, belongs to the group of least developed countries. At first sight, it has major constraints on its development — it is landlocked, it has considerable demographic pressure, it is short of natural resources, it is essentially agricultural with an unreli-



The Courier

**Donatien Bihute, President of the Chamber of Commerce and member of the National Commission on National Unity**

*"The progress of the past two years has really given everyone hope"*

able climate and it is heavily dependent on the outside world, with wide fluctuations affecting its export trade and little control over its supplies of goods and capital.

Let us start with the fact that it is landlocked. Its communications problems are not just external. They are domestic too, as some regions are still



The Courier

**Bonaventure Kidwingira, Minister of Trade and Industry**

*"Our imports probably cost an extra 30% as a result of our landlocked situation"*

fairly cut off and access is difficult. These areas, therefore, have very little to do with the economy as a whole. But the better known and more obvious aspect of this is the distance of the main outlets on the ocean. Mombasa is 2000 km away, Dar-es-Salaam 1400 km and, as Trade and Industry Minister Bonaventure Kidwingira said, "imports cost probably an extra 30% as a result, not to mention all the delays, supply breakdowns and so on. We are absolutely dependent on outside factors, but we welcome the efforts which both the neighbouring countries and various donors, including the EEC, are making to improve the situation. There is already a certain amount of competition in the ports and we are fairly pleased about it. It's the procedures and the routing, mainly, we have to improve. There's an effort to be made in the region here. It's all a question of organisation and political will".

**A pivotal role**

Many people in Burundi are quick to point to the pivotal role that the capital, Bujumbura, could have—or indeed, regain since this was very much its role before independence—in East, Central and above all Southern Africa. State Secretary for Planning, Salvator Sahinguvu is convinced that "one day we will be able to turn our geographical position to advantage, as trade is now developing so quickly with the countries in the South and with the prospect of a free South Africa there is every reason for hope".

Businessmen like Mr Bihute, who is also President of the Chamber of Commerce, talk about the potential of Southern Africa. He observes; "Bujumbura, which has something like 400 000 inhabitants, many of them from the neighbouring countries, is the centre of a region where there are almost 30 million people living in a radius of 500 km, so the regional market is very considerable". But he stresses "the need to think about proper regional cooperation at private business level. Bodies like the CEPGL and the ZEP are in favour of doing away with customs barriers, obviously, but in practice there is always the very real problem of respecting commitments on both sides and non-customs barriers and red tape are legion...".



The Courier

*How will the latest oil shock affect this landlocked LDC in the heart of Africa?*

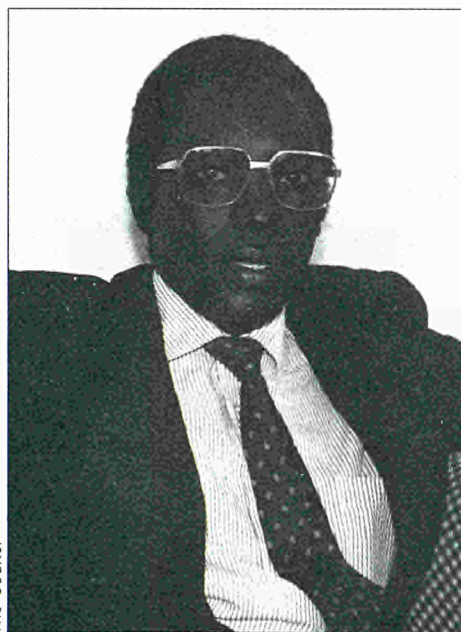
## Precarious balance

If the present 3% population growth rate is maintained—and it could well accelerate over the next 10 to 20 years—there will be 12 million Burundians by the year 2015. To say that this poses very serious problems is somewhat of a euphemism. The land will certainly not be able to cope with the increase in the population and food security will be threatened. Decent arable land is increasingly rare, much of the soil is deteriorating and erosion is constant. And the continual dividing of land means that the average peasant holding is now under a hectare.

The authorities are trying to phase in family planning services, obviously, via mother and child welfare programmes, but the subject is a very delicate one, particularly since the vast majority of the people are Catholic. Jumaine Hussein, Agriculture and Livestock Minister, said that “the balance between our demographic trends and Our self sufficiency in food is very precarious indeed and poses a real challenge”. Above all, he thought, “we have to do something about the land. We have to be very efficient about managing our rural environment, decongesting some over-populated areas, for example, to the benefit of other, less inhabited places and developing land that is still available even though it is difficult — peat bogs, for example. And we have to do some-

thing about the productivity of the peasants and push up their output. It’s easy to say, of course, but we know from experience that our peasants are individuals at heart and any kinds of supervision must go very slowly — as some donors have found out to their cost”.

Hussein points to two other major challenges to rural Burundi. “There is the fundamental issue of the way the institutions in the rural world work.



The Courier

**Salvator Sahinguvu,  
Secretary of State for Planning**

*“One day we shall be able to turn our geographical position to advantage, given the speed at which trade is developing with the countries to the south”*

And there is the problem of the monetarisation of the rural world, because we don’t have a demand for inputs they can afford to pay for yet”. So the ecological risks of the land being worked by an ever-expanding population has to be constantly weighed up if food security is to be ensured by the continuing development of crops, livestock and fishing in these conditions. The priorities are to ensure greater productivity and to maintain and improve the fertility of the land.

## Coffee – a textbook case

What better illustration of Burundi’s dependence on the outside world than the trials and tribulations of coffee, its main export crop? Here, where 95% of the population live off agriculture, it is the coffee crop, first and foremost, which provides the extra which the majority of the peasants need. Coffee accounts for about 10% of GDP and brings in 80-85% of the country’s export earnings and it would be easy to say that, when coffee does well in Burundi, so does everything else. Only coffee is not doing well. And with good reason, for the suspension of quotas in July 1989, when the economic clauses of the International Coffee Agreement failed to be carried over, virtually sent prices on the international market into a virtual free fall. And the slump coincided with a drop in the quantities exported — in 1988, 35 000 t were sold at an average price of FBU 412.5 per kg, bringing in about FBU 14.45 billion, but the following year, sales were down 18% to FBU 11.87 billion, quantities down 8% to 32 300 t and the average price down 11% to FBU 367.9 per kg. The Government cushioned the blow slightly by raising the national currency price of coffee through a 10% devaluation of the Burundian franc, after which it allowed parity to slide, so everyone would share the sacrifice and the peasant would not think that his coffee was now worthless.

To say that the Burundian leaders are unhappy about this would be a euphemism, but the most frustrating thing is perhaps the feeling of powerlessness as the situation gets out of control. “We are frustrated because our product is still a good product, it’s still getting better even, but we

have no control over its price and even less control over the prices of the goods we import — which always seem to be increasing”, Finance Minister Gérard Niybigira told us. Agriculture Minister Hussein said they are still lucky enough to have the Stabex to give the coffee industry a second wind”. In his view bodies such as the African Coffee Organisation and the International Coffee Organisation “are only secretariats and, as such, have no way of coping with this situation in practice. What hurts is that world supply is still greater than demand and the consumer countries in the International Coffee Organisation complain that other non-members buy their coffee at below the Organisation’s (indicative) price. The consumer, mercifully, is still willing to pay for quality...”.

In recent years, Burundi has produced mainly Arabica (30 000-35 000 t), a variety which contains less caffeine than the less popular Robusta (1000-1200 t), and it has a whole range of schemes in place to improve both quantity and quality in the industry. The production target, Minister Hussein said, with the help of a few donors, is 50-60 000 t of coffee for the market by 1992-93 — 37 000 t of which will be the fully washed type which attracts the best prices. A FBu 8 billion investment is in fact being made in 115 extra washing stations, over and above the 82 which can already produce fully washed, and FBu 1.2 billion-worth of extensions to a second plant in Gitega (the first is in Bujumbura) have just been completed. “All this proves that constant raising of the standard of our coffee is the constant aim. We have to make more capital out of the very sound intrinsic quality of Burundian coffee by having better marketing and, for the past two years, we have in fact been diversifying our clientèle outside the German roasters — although they are still our biggest customers”, the Minister said.

Tea is the second export crop and the approach is much the same. Four factories are being extended (with Community assistance) and a fifth is being built with the idea of improving output from the present 4000 t to 10 000 t. About a third of the crop is grown on industrial plantations and the rest on village plots — and it is



*How long can the precarious balance between demographic trends and self sufficiency in food be maintained?*

the small producers who are being concentrated on here. Production over the past few years has dwindled slightly, perhaps because of a decline in productivity, particularly at the picking stage, but current prices are some of the best of the past few years and, here too, the high standard of the Burundian product is well received on the international market. Cotton exports are in constant decline too, but there is an increasing tendency for the output (2800 t of cotton

fibre last year) to be taken directly by COTEBU, the Bujumbura textile complex. An attempt is also being made to introduce the crop to eastern and southern Burundi.

“We have invested a lot in these industries, but that does not mean we are putting all our eggs in one basket”, the Agriculture Minister said. “The diversification of agriculture is one of the top priorities that will reduce our dependence, particularly on coffee, because we cannot go on with the prices of coffee going up and down. More and more peasants are forming crop associations as a means of protection. Everyone is keen on the tobacco growing we introduced, for example, and the present results are very promising. Our diversification drives usually get an excellent response from the private operators and many of them have gone in for products like sweet potatoes, beans and maracuja”. Maracuja—or passion fruit—juice is becoming more and more popular in bars, restaurants and homes now and looks as though it will do well.

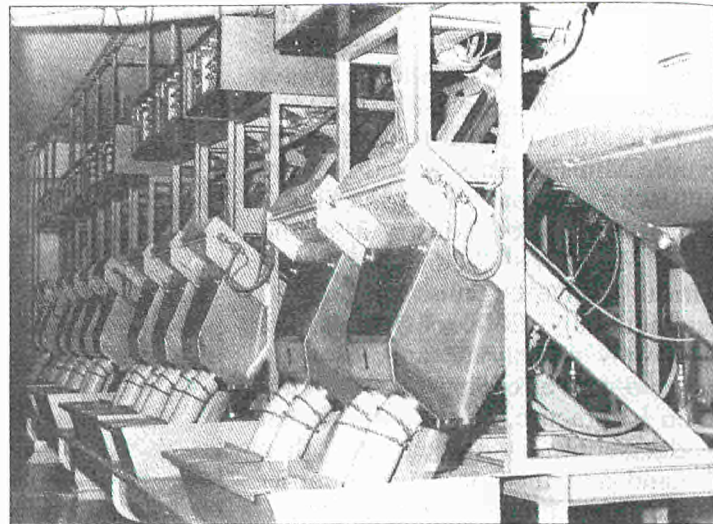
Conventional methods are still very much the rule in the livestock sector and animals are looked upon as walking capital, so the Minister intends to “back progressive herdsmen who want to capitalise on their herds”. The search for higher-output (milk especially) more disease-resistant cattle will go hand in hand with measures to promote small herding concerns and bring them within everyone’s reach. In a country where the fertility of the soil is a problem, peasants are being encouraged to combine



**Jumaine Hussein, Minister of Agriculture and Livestock**

*“We have to ensure that our rural environment is managed very efficiently and do something about peasant productivity”*

The Courier



*Coffee is a textbook case which illustrates the unfortunate dependence on a single crop and international markets which are beyond the country's control. "When coffee does well in Burundi, so does everything else"*

herding and farming so that more manure is available and can be put to better use. Fishing in this country is essentially lake fishing, of course, and Burundi, which has also a number of smaller lakes, controls 8% of the area of Lake Tanganyika and exploits its part proportionally more than the other countries on its shores. "The UNDP is running a regional evaluation of the fish resources to see that they are capitalised on better, particularly now that eating habits have changed and many of the old taboos about fish are fading", Hussein said.

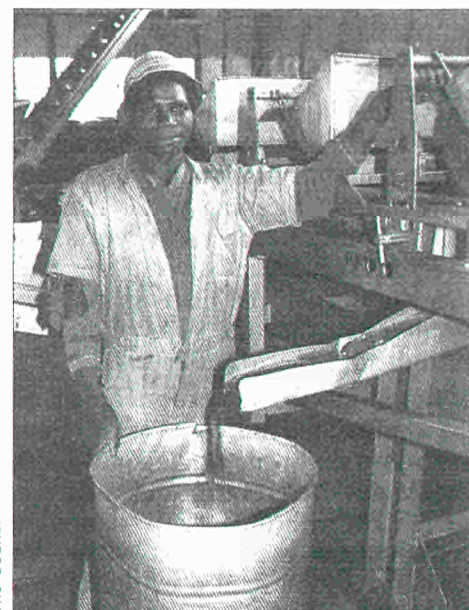
### A changing business climate

"A still embryonic industry", is how Trade and Industry Minister

Bonaventure Kidwingira described Burundi's still very weak secondary sector. And, in a nation of farmers, it comes as no surprise that the idea is to develop agro-industry (tobacco, sugar, manioc, livestock and textiles) first, particularly the SME, or that such importance is attached to craft. A private law company, the External Trade Promotion Agency, has been set up to promote SMEs in this area of the economy, always with an eye to potential outlets in this sub-region, and various other schemes financed by different donors are also working to create more and more non-agricultural jobs, striving, with Government assistance, to help shape a new business climate in which firms do better than they did in the past.

Kidwingira said that "although the meaning of enterprise is a matter of controversy—in the past, the State virtually kept the right of investment for itself—you can see that the tradesmen now are keen on doing things and that the operators seem convinced that the time to invest has well and truly arrived".

Donatien Bihute, the President of the Chamber of Commerce, went so far as to say that "there is an excellent climate for business here and the Government's attitude to the private sector has nothing in common with the distressing situation we had under the previous régime. Even if there is still a lot of red tape holding back some areas of the economy, at least they listen to us now. There is a



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*Tea, the second export crop, is also of very high quality and here, mercifully, prices at present are some of the highest in recent years*



permanent dialogue and we are gradually getting somewhere. The torpor, if you like, in business and trade over the past 20 years is fading out and the image of these sectors is changing. There are still problems of management and training of course, of people's ability to show enterprise proper, but at least now the institutional framework is developing along the right lines, the climate is a bit more conducive to investors now things are more relaxed and the way to reconciliation is open. And at least people realise that our human capital and our geographical situation may even be assets".

### Structural adjustment stabilisation achieved

The profound change in the business climate cannot, of course, be appreciated without a look at the structural adjustment drive the nation has been running since mid-1986, a series of economic reforms based on price and import liberation, the reorganisation or privatisation of public firms, revision of the monetary and credit policy and a new investment code.

"When we were on the threshold of structural adjustment, we were probably in a less dramatic situation than most other countries and we managed to reduce our public finance deficits mainly by pushing up revenue, which meant we could maintain a certain level of spending and avoid swingeing cuts in the social sector", said Salvator Sahinguvu, the Secretary of State for Planning. "The Government set a lot of store by telling the people why structural adjustment was well founded. The reforms were mainly intended to rationalise the workings of the economy and to stabilise, something we can now say has been truly and efficiently achieved" (this statement was made in early August, well before the effects of the latest oil crisis were felt).

Finance Minister Gérard Niyibigira said that, last year, "in spite of earnings lost through falling coffee prices and stagnating customs revenue, we still put up a significant performance with our overall income and tax collection" — a display of satisfaction with the results of adjustment (a recent exercise, begun only in July

1986) which did not, however, preclude the following remark. "Our problem is growth and that is where I reproach the IMF and the World Bank, if I can put it like that. The basic concept of our adjustment programme was to concentrate on stabilisation, but, with our continuing dependence on the outside world, we also need growth. So let us reset our sights, because we have stabilised, and let us put the accent on investment



The Courier

Gérard Niyibigira, Finance Minister

*"We cannot pride ourselves on having made a success of reconciliation yet, but we are getting there bit by bit and restoring our credibility with the outside world a little more every day"*

and production". Although the Minister agreed that adjustment was bound to have social consequences, he pointed out that, "here in Burundi, they are not the conventional ones they have elsewhere. We are convinced that, even in a period of adjustment, we should continue to allocate a great deal of our resources to health and education, for the rural population is the aim and the focus of all development".

### Restoring credibility

The wind of economic liberalisation is blowing across Burundi, undeniably, and it has already blown away several images of State control. The State, once the biggest investor, has completely revised its role to the benefit of the private sector. Several pub-

lic firms, for example, many of them badly-managed, highly expensive lame ducks, were liquidated and some were reoriented and their management and finances improved or partly or completely privatised. "It's a question of the efficiency and profitability of public investments, not ideology", Sahinguvu maintained.

Some ambitious targets in the Five-Year Development Plan (1989-92)—5% growth for example—look unrealistic at the present time, when the real growth figure for GDP in 1989 was only 1.5%. Since he was in no position yet to assess the clearly very negative consequences to Burundi (a landlocked LDC) of the latest oil shock, the Finance Minister was still able to say that "the conditions are now right for us to concentrate more on growth. It is a fact that we have spent more time setting our political house in order over the past few years, after the events we all know about, than working on the economy. We cannot pride ourselves on having made successful reconciliation yet, but we are getting there bit by bit and restoring our credibility with the outside world a little more every day".

And there are plenty more problems — debt, erosion and reforestation, to name but three, very serious ones, but they are seemingly "under control" in spite of everything, although they have not yet been "solved". But from whichever angle Burundi's development is approached, the notion of Unity is always there. People are more concerned with liberalisation and private initiative, of that there is no doubt. They are keen to reduce dependence on coffee and make a success of diversification, of that there is no doubt either, or that the big problem is out in the open at last and being tackled at the roots. But time alone will tell whether the Burundians will make a success of taking up the challenge of their future — rebuilding National Unity. The sorry events in neighbouring Rwanda in October, which have the same causes and origins as here, cast a threatening shadow further south. Will good sense prevail over passion?

The answer can only come from the hills. ○

Roger DE BACKER

## PROFILE

**Territory:** 27 834 km<sup>2</sup> (including the 1 885 km<sup>2</sup> of Lake Tanganyika); landlocked: 2 000 km from the port of Mombasa and 1 400 km from the port of Dar es Salaam

**Population:** 5 382 000 inhabitants (1990)

— density: 207 inhabitants per km<sup>2</sup>

— growth rate: 3.06%

— main ethnic groups: Hutu, Tutsi, Twa

— national languages: Kirundi, French (administration)

**Capital:** Bujumbura (± 400 000 inhabitants)

**President of the Republic:** Major Pierre Buyoya

**Currency:** Burundi franc (FBU)  
1 Ecu = 218.29 FBU (October 1990)

\* \* \*



<i>Economic statistics</i>	1988	1989
GDP at current market prices (FBU bn)	152.5	174.9
Real GDP growth rate	+ 4.9%	+ 1.5%
GDP per capita at current prices (US \$)	209	206
Exports of goods FOB at current prices (FBU bn)	17.5	14.8
Imports of goods CAF at current prices (FBU bn)	23.3	24.0
Main exports:		
— coffee: value (FBU bn)	14.5	11.9
volume (tonnes)	35 050.8	32 277.1
proportion of total exports FOB	82.8%	80.3%
— tea: value (FBU bn)	0.78	0.89
volume (tonnes)	3 541.0	3 004.1
proportion of total exports FOB	4.5%	6%
Balance of payments:		
Current account balance (FBU bn)	- 9.97	- 1.92
Capital account balance (FBU bn)	11.83	10.16
Public external debt (end of year) (FBU bn)	121.32	154.3
External debt servicing (FBU bn)	6.62	7.95
External debt servicing as a percentage of exports	34.6%	46.2%
Budget		
— current receipts (FBU bn)	23.90	31.66
— current expenditure (FBU bn)	22.64	26.91
— budget deficit (commitments and excluding aid transfers) as a percentage of GDP	- 10.9%	- 9.9%

## “The Burundians are ready for reconciliation” declares President Pierre Buyoya

*What do the Head of State of Burundi and the Head of State of the USSR have in common? At first sight, very little. But a closer analysis reveals some startling similarities. They have both had to break through the taboos hampering their countries' future and they have both used a policy of “glasnost”, geared to their own particular circumstances, to do this. They have both come up against extremism at either end of the political spectrum and had to show lucidity and conviction to fight it and make a success of the policy of openness so vital to both. And they both recommend an attitude of openness in both domestic and foreign affairs.*

*Glasnost—or transparency—Burundi-style is a home-grown product, let there be no mistake about that, and it emerged well before the new wind began blowing through the East in late 1989. Indeed as soon as Major Pierre Buyoya overturned Colonel Bagaza (Head of State since 1976) and came to power on 3 September 1987 and the 3rd Republic was proclaimed, he clearly announced his plans for a society focused on National Unity. Right from the start, he was forced to break through the taboo which had clouded the country's ethnic situation for years and hung like the sword of Damocles over Burundi's future.*

*The bloodshed which claimed thousands of victims in August 1988 merely strengthened his deep-seated conviction that what the nation needed was a return to harmony and unity.*

*In this interview with The Courier (August 1990), 41-year-old President Buyoya explains the current process of reconciliation and democratisation, comments on the results of Community aid so far and, most important, says what he hopes to get from some of the new possibilities created by Lomé IV. And in his capacity as President-in-Office of the Economic Community of the Great Lakes and the Kagera Basin Organisation, he also looks at regional cooperation as one of the answers to Africa's problems and takes a stand against the Afropessimism which such issues can generate.*



The Courier

► *Mr President, you seem to be determined to break down the taboo around the ethnic problem and the barrier it constitutes to National Unity. How do you expect the new national dialogue and this drive for reconciliation to end up?*

— We have indeed brought in a policy which we call the policy of

National Unity. The idea is to break the taboos surrounding the problems of getting united, particularly the tribal problems here in Burundi, and we have resolutely set our people on the path to unity and reconciliation. As things stand, I am very pleased with what has been done so far and especially with the way the Burundian people accept and support this

policy because, ultimately, that is the policy of the Burundians themselves. It's up to them to support it and it's up to them to improve it. We have mapped out a very clear path, I think, towards complete reconciliation once and for all; towards the establishment of a State of law and social justice in which everyone feels he is a citizen of Burundi first and

foremost, with the same rights and freedoms, and in which belonging to the nation is more important than belonging to different tribes, regions, religions or anything else. That is our aim. Clear, lucid guidelines for what we want to do, are set out in the Charter of National Unity. That is where you will find the plans for the society we want to build here in Burundi — a State of law, a State of democracy, a State in which everyone is equal and a State in which social justice and the rights of every citizen are respected. It's not all plain sailing, of course. You don't achieve aims of that sort overnight here or anywhere else and you don't achieve them without difficulties either, when you have been divided for years and there has been bloodshed which has made for resentment, of course, and triggered reflexes of fear and tribal feeling and so on. But I think I would be right in saying that today the Burundians are ready to be reconciled and to set their sights on unity in building their future.

► *What is the political calendar and the timetable for setting up new institutions in your democratisation process?*

— The political calendar has already been announced and the institutions will be set up in the light of it. At the end of the year, we are going to have an extraordinary, enlarged UPRONA Party congress during which we shall be taking a further step along the path to unity, as you might say. This means we shall be improving the institutions we already have and of course doing so with a view to creating unity. Then, at the beginning of next year, there will be a referendum on the draft Charter of National Unity—the platform for what we shall be doing in the future—and after that we shall be setting up a Constitutional Commission to draft Burundi's future constitution, which will be the subject of a referendum too. It is the constitution, here in Burundi as elsewhere, which lays down the institutions which the country is to set up. A particular subject of discussion at that stage is whether we want a single party or a multiparty system here and, whatever we go for, how we should

organise things so that Burundi gets the democracy which it seems to me it has already chosen.

► *But a multiparty system always carries the risk of tribal votes and the formation of what are ultimately tribal parties...*

— Yes it does, but I don't think it's just Burundi's problem. I don't think it's just Africa's problem either, because countries in Europe and other parts of the world have tribes and other socio-cultural groups — which is also why each country organises democracy in the light of its own particular situation. When we organise democracy here in Burundi, be it with a multiparty system or not, we shall base ourselves on what actually happens here. We shall join together and say: "There you are. Things being what they are here, what can we do? Where are we going?" Those are the choices we shall be making and that is why we have opted to make them democratically. We didn't want to decree democracy. We are going to ask all our people what they want. First of all, a select group of Burundians will make proposals in a clearly defined framework and then we shall then discuss them with all Burundians. And all the Burundians will decide what they want. I'm sure they will also be making their choices in the light of the actual situations in which they live — which is why there are so many questions on what we should do and how we should combine democracy with a multiparty system and on tribal divisions and so on. Those are the things that are going to be discussed democratically, I believe.

► *Is Burundi's democratisation process being affected by what we now call the new wind blowing from the East or is it something particular to Burundi itself, something home-grown?*

— First of all, I think the changes in Burundi antedate this process, because we were already in the throes of change when it happened. We embarked upon our broad discussion of the problems of unity democratically and we did so before the wind started blowing from the East, as you put it. The events in

Eastern Europe affect the whole world and Burundi too of course, and the discussions which had already started then and are going on today certainly do take this new international situation into account. But that is not to say that it triggered the process of change in Burundi. Look what happened. In Burundi, last year was the peak time for these discussions, well before all the upheavals of the end of 1989. So we are talking about two different phenomena, although inevitably there are some links.

► *One of the fundamentals of the Charter of National Unity is human rights. Yet foreign observers say that Burundi has had people in prison without any charge for nearly two years now<sup>(1)</sup>. What are your views?*

— First of all, we have also opted for human rights, as I already mentioned, and if you read our Charter of Unity, you can see that we set a lot of store by them. I should like to tell you what I told someone else earlier today and that is that the notion of human rights isn't something we have to learn about from anyone else. Human rights are a proper part of the Burundian tradition and it doesn't take much to convince the people that they have to be respected. Only, when you organise nations, there are different problems. There are people who, for various reasons, have to be put in prison here in Burundi, in Africa, as they do in Europe. But over the past few years, I think, the West has made itself the champion of human rights, giving lessons to the rest of the world I would almost say and bringing us into situations that can sometimes be difficult to understand. If someone is sent to prison for committing an offence in France or Belgium or Germany, that's fine. It's called justice. If someone is sent to prison for the same thing in Burundi, it's called violating human rights. That's the way it is. But we are all in favour of human rights, we all want them to be respected and I think this is coming about in a real and realistic field in which men commit offences and make mistakes every

(1) Amnesty was in fact given on the eve of Jean Paul II's visit in early September.

day... We are doing our best to apply the laws and avoid unnecessary suffering, as you are, but there are different interpretations in some cases. We too are in favour of human rights and we shall handle whatever problems and issues we have with due respect for them.

► *Now, in the throes of this political change you are undergoing in Burundi, would it be an exaggeration to say that development—which could be a potential key to Burundi's problems—has perhaps been left out in the cold?*

— We haven't forgotten development by any means, let me assure you of that, because development is also the subject of an important debate here and we have linked unity and development quite deliberately. They are linked, in fact, because you can't have unity without development. And you can't have development without unity either. So we are discussing the two, unity and development, in parallel. We set up the Economic and Social Council in March and it has representatives from virtually every section of the population on it, people from every tribe, every region, every faith and every socio-professional group, thinking hard about development problems and suggesting long-term solutions here too. So at the extraordinary Party congress, we shall be looking at both the draft Charter of Unity and the Development Charter. This shows the importance of the two major concerns of the Burundian people — unity and development.

Communal decentralisation is something we decided on for simple reasons. We wanted to ensure that development programmes related to the basic needs of the population, were carried out at grass roots level, as close to the people as possible, because experience has shown that, while we can set up big development projects at the level of the regions and the provinces and other major units and while we can channel plenty of means into them, afterwards, we note that there is only a very minimal effect on the population because the whole thing can be silted up by red tape at any given level. So we may well find ourselves

in a situation in which the population itself does not realise it is involved in development and we may well find ourselves developing people who don't realise that they have themselves to develop. This means going to the grass roots first and convincing people that they have to take part in their own development. That is the motive behind our policy of decentralisation to the communes. We started at the legal level, with new communal laws giving the commune—which is a fairly small unit of around 30 000, 40 000 or 50 000 people in Burundi—broad powers of management and decision and important prerogatives when it comes to development. That is done and we are now reorganising the way the communes are administered, so they have the sort of administration that can cope with all that. There is a problem of means too, obviously. Today, the commune can raise taxes on its territory and use it for the population's development, but we know that these means are inadequate, because it takes a lot of communal tax to develop and run a commune and an under-developed population means the tax is limited. This is also why we now have a plan for the communes to get direct help from the central authorities and maybe from our cooperation schemes with the outside world. We

are setting up what we call a communal intervention fund. It's still on the drawing board, but we would like to use it to improve the communes' development potential. We don't know exactly how just yet, but we have got plenty of ideas. We could get the central authorities, say, to give direct grants to communal development operations and to help communes build primary schools or health centres on their land and provide water points, catering for what we call the basic needs of the population. The fund could also be used to provide credit for communes, so those which are able to make repayments can get loans from this institution.

We could also channel cooperation in this way. The cooperation we have with the European Community, for example, and other sources could come through this institution and be used for the direct financing of schemes in the field at the most basic level, providing water points and primary schools and health centres and tracks and so on. This is perfectly feasible, I think, and it is a plan which I have had the opportunity to put to Mr Marin, the Vice-President of the Commission responsible for development cooperation. He understood me, I think, and, in a few weeks, I believe that we shall be finalising the way we can cooperate



Vivante Univers

**Burundian folk dancing**

*"When we organise democracy here in Burundi, be it with a multiparty system or not, we shall base ourselves on what actually happens here"*

once the fund is set up — and we are going to set it up right now. We are very keen on decentralised development because it makes the people shoulder responsibility and that, I think, is a way of solving the real problems which they have to contend with. Burundi isn't very big, but getting the slightest thing done can be a problem... Let me give you an example. If you are fitting out a health centre in the most out-of-the-way part of commune A, say, and you have miles of financial red tape from the central authorities to cope with, it is highly likely that your project will never get off the ground. But now the problem is in the hands of the people actually concerned and they have to be able to handle it all themselves, directly, without wasting any time. That is what communal decentralisation is all about.

► *What do you think about cooperation with the Community so far and, most important, what do you expect from it under Lomé IV?*

— First of all, as I think we have already had the opportunity of saying, our cooperation with the European Community is very sound and has been for many years. The Community has been and still is helping us in priority sectors such as agriculture and infrastructure, roads especially, and that is important to a landlocked, 90% agricultural country like Burundi. And you can see what has been done in the field. The achievements are there, so I think this cooperation is a very good thing. We are hoping for a lot from the Lomé IV provisions — we are working on the programming now. I believe that Lomé IV is going to improve what has already been done here in the priority sectors mentioned and I believe that it also has the advantage of including other areas too, boosting the private sector for example, an important thing which we are working on at the moment, particularly as part of our economic reforms. And indeed the support for these reforms, for structural adjustment, is new. Lomé IV also seems to be concerned with the environmental and demographic issues which are a challenge to us here in Burundi, so it is the sort of

cooperation which we appreciate very much.

► *Do you expect to see something specific about the Community approach to structural adjustment?*

— This is a new approach and, I think, a timely one, because structural adjustment has tended, so far, to be piloted by other institutions, such as the World Bank and the IMF, and these institutions are fairly rigid in their approach. It is my belief that this has sometimes led to very difficult situations, as a look at a number of African countries shows. But the European Community's philosophy is to be more flexible, apparently, and much more pragmatic and I think, hopefully, that this will make for greater flexibility when it comes to the way programmes are timetabled and even in some cases designed. I also think that there will be more emphasis on what we now call the social dimension of programmes, as we get the impression that the Europeans are maybe more sensitive to this than other institutions like the World Bank and the IMF. So it is a good thing, I think, both for us and for all the other African countries in the throes of adjustment, to have several partners with maybe different approaches but the same aim of achieving reform.

► *Do you think that Burundi will be using the demographic provisions of Lomé IV, another innovation, in view of the fact that you say that demography is a challenge to you?*

— That is true, I think. Demography is one of the biggest challenges Burundi has. And we are going to take it up. We are already operating various programmes to try and tackle the population explosion, but we are well aware that they need improving and expanding and, if we can find support, from whatever source, then we shall certainly use it. The demographic problem is a challenge, of that there is no doubt, but I think it's the sort of challenge we can hope to handle. There is no point in giving up just because the going is difficult. We are delighted that the Community has earmarked resources for this and we shall certainly be applying for them.

► *Burundi also has fairly heavy debts, doesn't it? How can they be reduced?*

— Burundi does indeed have heavy debts, but I should like to point out that there are countries with heavier ones and that Burundi has always paid its debts so far. That, I think, needed saying. But the debt is still heavy compared to the resources channelled into repayments. It represents almost 40% of our export earnings at the moment and almost 30% of the budget, which is enormous, obviously. And it is a fairly unusual debt. A very small proportion of it is bilateral debt to other countries, but the big thing is what we owe the different international organisations, the World Bank and the IMF, for example, and the African Development Bank and the Arab Development Bank and so on. That makes up the bulk of it. Unfortunately, these institutions have done no postponement or rescheduling so far. So what do we do? We call for an answer to the debt problem, obviously.

Overall, there is probably no answer to the African debt other than writing the whole lot off, because it gets bigger every day. Things are such now that it is impossible to control the way it mounts, particularly with devaluation and debts going up by 30% or 50% overnight. The countries of Africa will not be able to pay them in the long run and the international community has to understand that, I think. What I want is a way of writing the debt off, pure and simple. That is the best way. Otherwise they will give us help with our repayments and the debt will go on mounting and we will still be in an unstable situation with whatever we produce being used to fund repayments. It's already happening. How do you expect us to develop? We welcome the efforts that are already being made and I think that ideas are changing. Some countries have already made a stand to try and find practical answers to the problem. France has and we hope other countries will follow suit.

► *After years of relative isolation you have made an effort to get Burundi reintegrated in the region*

*What, practically speaking, do you hope to get from regional cooperation?*

— Regional cooperation is one way of helping solve our present problems. The African countries—and I don't just mean those in the sub-region of the Great Lakes of Central Africa—have serious problems to contend with and I don't think any of them can cope alone, so there has to be sub-regional and regional cooperation. And, ultimately, the world today is reorganising itself around units made up of countries with relations of this sort. They are being set up in Europe and America and Asia and I think Africa has to have them too. If Africa is to set itself up, it has to start somewhere and that somewhere is sub-regional units, because a country such as Burundi, a small, landlocked, overcrowded place, can't develop in isolation. It's impossible. There are all the problems of markets and supplies and so on to work out and it cannot be done in isolation in Burundi. So we need sub-regional cooperation first, I think, and regional cooperation afterwards and I am pleased to say that our sub-region already has the right instruments for this. We belong to a number of organisations — the Economic Community of the Countries of the Great Lakes, for example, which binds us to Zaire and Rwanda. This was formed several years ago now and has various practical achievements to its name, but I think it could do better still. Free movement, preferential tariffs and so on are currently being arranged and it's by no means easy, but I don't think it's easy for any organisation. We're also in the preferential trade area with countries of the eastern and southern parts of the continent, a young organisation, but one which is working well, I think, and we have already got what we call preferential tariffs. It's a very active organisation trade-wise and it has done a lot in a short time. Then we are members of the Kagera Basin Office, together with Tanzania, Uganda and Rwanda, working on development projects related to what we call the Kagera Basin, which could be very helpful to the people of this region. And lastly, there is the Community

of Central African States. So the instruments are there, I think, but we should perhaps be in a position to make the institutions work. That's the problem. But I am convinced, and I believe my colleagues, are too, that sub-regional cooperation is one of the ways in which we can solve our problems.



The Courier

*"I in no way share this Afropessimism... We can solve our problems perfectly well"*

► *When you discuss these African problems, how do you feel about that Afropessimism that seems to take over, with Africa being seen as only on the sidelines of the world today?*

— I should like to say straight away that I in no way share this Afropessimism. First of all, people with this attitude to Africa tend to be people who know very little about the continent and they take one or two temporary, one-off situations as proof that Africa has "had it", that all Africans have a gloomy future before them, that Africa has insurmountable problems and so on. We Africans should refuse to accept such Afropessimism, I believe, because, unless we are careful, people will be trying to say that we can't solve our own problems, when I think we can do so perfectly well. It will take time, of course. It won't be easy. Nowhere in the world has been built without

problems. Everyone has problems, but I believe Africa will win through.

► *Another concern you probably came across on your recent tour of Europe is the fear which many developing nations, ACPs included, have about Western Europe's heightened interest in Eastern Europe being detrimental to its interest in its partners in the Third World...*

— First of all, I think the fears about Western Europe losing interest in Africa because of Eastern Europe are justified. The countries of Eastern Europe have to be helped to recover and they need a vast amount of means if they are going to get out of the situation in which they find themselves today. And they are going to look for these means on the spot, of course, in Western Europe, which is perfectly logical, I think. And when there is a demand from several sources but the supply stays the same, each applicant clearly gets less, so the fear is justified. We have already said as much to our European partners and they reassured us, telling us that what was being done for development in Eastern Europe wouldn't be subtracted from Africa's development. We noted this commitment and there has been nothing so far to suggest we should doubt it, at least as far as official aid is concerned, although I think that private investments are another story. We can see a move towards disinvestment in Africa and investment in Eastern Europe at the moment. It's there for all to see — maybe not directly in Burundi's case, but in the countries of Western and Central Africa, certainly. That's a fact and the fear is justified by actual situations, in a way. When it comes to official aid, as I said, we have noted Europe's commitment to maintaining and maybe even raising the level of its aid to Africa. Western Europe is able to do this, I think, but it's maybe a question of political will above all. It really can help both Africa and Eastern Europe and, at the same time, perhaps help Africa more than it did before. We have no reason to doubt this political will and I think the efforts made in Lomé IV should reassure us on this point. ○

Interview by R.D.B.

# “Far more harm would be done without adjustment”

## An interview with Prime Minister, Adrien Sibomana

*The dramatic events which revealed continuing inter-tribal tension in this country in August 1988 were followed by measures to bring all the Burundians together. A National Commission was set up to look into National Unity, a Government reshuffle on 19 October 1989 ensured a better ethnic balance and a new Prime Minister, a Hutu, Adrien Sibomana, was appointed.*

*The new PM, who is as keen as President Buyoya himself on national reconciliation for the people of Burundi, is also very concerned with his country's development — although this comes as no surprise in one who is both in charge of the Plan and chairman of the Economic and Social Council. For him, the Charter of National Unity and the Development Charter go hand in hand, as he explains in this interview with *The Courier*. He has something to say about structural adjustment too, which in Burundi, rather unusually, involves no swingeing cuts in social spending. It would be quite wrong, he maintains, to confuse the effects of the adjustment drive with the effects of the crisis itself.*



The Courier

► *Prime Minister, Burundi seems to be changing in two ways; politically and economically, at the moment, but just how far do they go together? Do you not think the debate about National Unity is likely to make people forget the debate about development*

— Burundi is indeed bringing in both political and economic reforms at the present time. On the political front, we have got a broad debate going on National Unity, with the particular idea of involving the whole of the population in running the country, and there would be something missing if this debate were not accompanied by another debate on what is actually being run — the economy that is to say. In other words, the debate on National Unity and the debate on economic issues are two entirely complementary things and so the political reforms and the economic reforms

are complementary too — two sides of the same coin, you might say.

► *Would you agree that, politically speaking there is a sense of relief among the people of Burundi who are saying that at last they can speak out, that they have always known the problem was there, but now it has been brought out into the open, and people are talking about it, that this is the only way to achieve reconciliation?*

— Yes I would. They are relieved. People all over the country really are very relaxed now; you can sense that. There is a freedom of expression in the debate that I have never experienced in this country before and that is a sign that the situation really has eased. So the debate on National Unity is not just a quest for unity. It is a real exercise in democracy and freedom of expression.

► *You, as Chairman of the Economic and Social Council, are directly involved in drawing up the Development Charter. What do you expect this Charter to do, what is the timetable for getting it established and how will you set about putting into practice later on?*

— The Economic and Social Council has indeed been invited to look at the challenges and constraints facing our economy and to produce a Development Charter. The first thing to say is that the Council is made up of people from every walk of socio-professional life, every part of our society, and so we are fortunate in having complementary ideas — something which is already clear in our meetings.

The Development Charter which these people come up with, should be something which reflects the



Burundians' commitment to strive for the development of our country. It should firstly, embody the awareness of our problems of socio-economic development and secondly represent the general commitment to work for development. That is what the Development Charter must do. It has still to be drafted, as currently, we are only exchanging our experience and thoughts about the long-term considerations, but we expect a lot both from the Council and later, from the reflections of Burundian citizens on how to get the Charter right.

In principle, the first draft will be ready by the end of the year. Then there will be an extraordinary Party Congress which will be attended by other political and non-political associations recognised as having an interest in national development, and this will be an opportunity to look more closely at the first draft.

But the essential work will be undertaken at the level of the nation. It is the Burundians themselves who will have to think about these matters and it is they who will have to make practical proposals for dealing with them — albeit on a basis established after reflection by the members of the Economic and Social Council.

► *Burundi, like many African countries, is in the throes of structural adjustment — although without the swingeing cuts in social spending which most other places have experienced. What is your initial assessment of adjustment Burundi-style? Some people say that you have managed to stabilise, but that growth has not taken off yet. Do you think that is true?*

— A country's economy is, I think, rather like a human body—if it needs looking after, you must look to the individual needs—not treat everyone in exactly the same way. I am not saying that we have unique qualities in relation to other countries here in Burundi. In fact, this is a very poor country compared to some others with their vast mineral, agricultural and other resources. We began our adjustment, a multi-phase drive, in 1986 and I can tell you that it involves

economic reforms that are absolutely vital to our country and that the population has to understand them.

People often complain about structural adjustment, but to my mind it is the crisis they should be complaining about. It is wrong to confuse the effects of the crisis with the effects of adjustment when it is perfectly obvious that far more harm would be done without adjustment. There would be much more damage. And it is something which is often hidden from public opinion in countries where fairly disagreeable measures are called for. Here in Burundi, phase two, 1988-89 that is, was the time when people were made aware of what was going on and we told them what we were doing to get them involved, because it has to be a government programme above all.

There is a little bit of light at the end of the tunnel. We are having a certain amount of success with stabilising and righting some of the imbalances. The budget shortfalls are smaller, for example, and we now have a far better idea of handling State revenue. In this area, we have performed very well, going from year to year with a rate of increase of more than 30%. It was even up around the 40% mark last year — an excellent performance when you realise that Burundi's budget is made up of tax and cus-

oms revenue and not only have our exports stabilised but we have reduced the customs tariff on numerous items. We have done remarkably well here.

What we have to do now is get spending under control. We are working on this and will certainly make a success of it. The greatest thing we have learnt during the process of reform is what our position really is, regarding the shortcomings in our economy. It's very important for people to find out about themselves and to have a realistic idea of their economy.

So I should say that stabilisation is happening, but for various reasons, we have no growth yet. Growth depends on operators reacting and on people reacting and they often do not react very quickly. But here again we are getting some very positive reactions. In imports, for example, we now have the problem under control. People are no longer importing just anything. They are going to the most competitive and the most favourable markets and this is what has got imports stabilised. But in exports, our businessmen are very keen. Our industrialists are being more careful now after years of being over-protected and not very competitive, and now that industry is more competitive, we are feeling the effects.

We think that, in the very near future, we shall be reaping the ben-



The Courier

Part of the central market in Bujumbura, the capital

*"The greatest thing we have learnt from the process of reform is what our position really is regarding the shortcomings in our economy"*

efits of the machinery set up to create the proper environment and an atmosphere of enterprise, competition and success.

► *Many developing countries undergoing structural adjustment worry about the possible negative social effects. Are there any in Burundi? And if so, which sections of the population are hit and what can you do about it?*

— The first thing to say is that we have not yet assessed the structural adjustment programme of the past four years, although we are in the process of doing so. We have begun to evaluate some sectors and we will be carrying on with others.

However, we have not cut our social budgets here in Burundi. We have maintained our performance in education and I think we have even improved the public health situation, having vaccinated some 85% of our children which is a very good figure. We believe we can make it almost 100% very soon. School attendance is up at an estimated 84% and we have gone on testing and even improving on the social services. The retirement pension, in particular, has been increased.

So there has been no suffering on the social front, and we should go on making sure that our economic reform programmes cause no harm to anyone. If we want development after all, it is for the people and there would be no point in bringing about development for them and making some sections of the population suffer at the same time.

But having said that, I often think, as I have already mentioned, that people mix up the ill effects of reform with the ill effects of the crisis. For instance, isn't it better to reorganise a firm which is doing badly and likely to fold, even if it does mean staff cuts, than to wait for all the jobs to be lost? If 10% of the staff go before the firm has to close, maybe the other 90% can be protected. But people cannot see that in the beginning, even though it is just a matter of logic.

The damage could well be more frequent and more harmful, irrever-

sible even, if no-one carried out these reforms. But the confusion really does exist and public opinion, which probably feels ill at ease, sometimes sustains it. But it should have confidence, because no government would want to bring in harmful reforms.

► *Galloping population growth poses a double problem to Burundi — how to ensure a proper supply of food and, in the long run the big issue of how to create jobs. What do you think?*



The Courier

*"I think that people often mix up the ill effects of reform with the ill effects of the crisis"*

— This is a big challenge because our population here in Burundi is expanding at the rate of an estimated 3% p.a. and we think, if you are going to have the sort of development that is not neutralised by population growth, then you need the economy to expand by at least 5% p.a., which is very high.

We have not had any disasters like famine so far, but we think that one of our priorities must be to feed the population and we have to set up quickly, an efficient food production programme. If we can feed everyone, I think we shall have notched up a first success. And then we really have to think about creat-

ing jobs outside agriculture. We believe that there are some sectors, the informal sector and craft for example, which could be promising here and we are thinking about developing some interesting branches of them. Family planning services are also needed. We have already run a number of projects with the Ministry of Health, aimed at making the people aware of the situation and preparing them for the birth control that will hold back the population explosion.

► *On the subject of demographic growth and health care, some sources suggest that AIDS is very common in this part of the continent. What do you think?*

— What I can say is that, in the countries of Africa, malaria kills more people than AIDS. But I believe AIDS is a scourge which we have to protect ourselves from and we in Burundi have already begun a campaign for the target populations. The rural environment, which is so far AIDS-free, has to be protected. So too, do the young people in the towns because that is where most of the HIV-positive people are, and everything has been done to put these target populations in the picture. We run regular campaigns in the media. You have had the opportunity of seeing posters displayed all over town telling people about it.

We are also trying to find out how the disease is spread over our population and which sections are most at risk and this will enable us to tackle the scourge far more surely and efficiently.

► *In conclusion, Prime Minister, if you had one wish, what would you want to see here in Burundi in a year or two?*

— Unfortunately, I don't often get the opportunity to make a wish. but if I did, I should like to see Burundi united and prosperous. with all its people prosperous and able to choose what they do and earn a decent living. And I think it could come true, because it's just what most of my fellow citizens wish too. ◊

Interview by R.D.B.

# Burundi – EEC

## Growing cooperation from independence to the year 2000

by Patrick TOWERS-PICTON (\*)

Cooperation between the European Community and Burundi goes back to 1962, when the country became independent and joined the association of AASM<sup>(1)</sup>, the predecessor of the ACP Group. Close commercial, economic, financial and technical links have grown up since then through the schemes run during the six European Development Funds and a frank, constructive dialogue on all matters of common interest at every level has led to a partnership of prime importance to Burundi.

The density of the population of this small, landlocked country with few mineral resources in the heart of Africa is more than 200 to the km<sup>2</sup>, making farming the most important sector of the economy.

This is why the EEC has concentrated on development priorities in the rural sector from the very beginning, although with due attention to national and regional infrastructure and other needs.

Development in this country depends on being united and stable at home and being part of the growing economy of the region of central and southern Africa. The liberal and constructive aims of the President of the Third Republic, in office since September 1987, are the basis of the present Burundi-EEC dialogue and will be behind schemes in the focal and other sectors under Lomé IV in 1990-95 and beyond. The dialogue also includes close collaboration with those Member States which are most active in Burundi and with the World Bank and the UNDP — both of which are involved in the structural adjustment programme which the authorities have accepted and applied since 1986.

### 1960-76 — 1st, 2nd and 3rd EDFs

Burundi has been an AASM since it became independent in 1962. It received ECU 4.9 million under the first EDF, more than 50% of it for rural development projects, and the proportion was maintained under the 2nd and 3rd Funds, although the overall amounts increased each time, to ECU 20.4 million under the 2nd Fund and ECU 32.2 million under the 3rd (1970-75).

During these first 13 years, Community aid to Burundi was used, *inter alia*, to set up:

- tea plantations and factories (Teza, Rwegura and Tora);
- national roads (the Bugarama-Gitega highway, the relaying of the

Route National (RN)1 and the Bujumbura urban network);

- hospitals (Cibitoke, Kayanza and Rutana);
- a teacher training college;
- a programme of study grants, technical assistance and studies.

### Lomé I – 1975-80 – 4th EDF

Burundi was allocated ECU 57.9 million under the 4th EDF and it was concentrated on the rural sector, as before. There was also a geographical focus this time, on the Zaïre-Nile Crest, the Imbo region and the capital.

A considerable investment (ECU 21 million) was also made in developing the tea industry.

### Lomé II – 1980-85 – 5th EDF

The design of the national indicative programmes changed under the 5th EDF (Lomé II) to cater for:

- agricultural diversification, with the appearance of forestry and food crop projects;
- more microproject programmes for the rural communities;
- Hydro-electric production and supply at national and regional level (Ruzizi II);
- the use of regional funds to open up Burundi.

The main 5th EDF projects were:

- the CVHA 1 programme (high altitude food crops);
- the Gitaba-Gihofi road, a continuation of the RN2;
- the Rwegura hydro-electric station and power supplies to Igenda-Mwero;
- the Imbo-centre development programme;
- the Kirundo region development programme.

The 5th EDF national indicative programme for Burundi, originally ECU 70 million, was increased to ECU 77 million in 1983.

The increase in the amounts allocated under the successive EDF's is a source of satisfaction here, but the rate of payment for rural development schemes is still very slow and some programmes (in Imbo-centre and Kirundo, for example) have not yet been completed.

The complicated nature of the operations is one reason for this. Another is the slow pace at which the authorities work, their officials not always having the necessary specialised training. And EDF red tape can often make it difficult for such projects to get off the ground.

### Lomé III – 1985-90 – 6th EDF

Lomé III policy and Burundi's priorities meant that 60% of the Commission's programme resources were earmarked for rural development and food security in particular. The second focal sector was economic infrastructure, especially transport facilities involved in the regional communications programmes for the Northern and Central Corridors. Studies for the Southern Corridor were also launched.

The aims of the indicative programme included:

- improving the rural environment by improving the socio-economic infrastructure to boost the population's production potential and income;

(\*) Commission Delegate to Burundi.

(1) African Associated States and Madagascar.

- protecting and preserving land and forests;
- promoting craft and cottage industry;
- providing training and advanced training for agricultural cadres in charge of running and managing rural development programmes.

These were also aims of the two socio-economic programmes in the natural regions of Mugamba (extension of the CVHA programme) and Buyogoma (Rutana-Cankuzo), where there is still some unused arable land.

The EEC improved internal communications and helped decentralise the economy by putting priority on rehabilitating previous infrastructure investments and creating and extending the rural road and track network.

In 1988, Lomé III programmes and projects, especially rural development ones, were held up for a variety of political and technical reasons. Burundi had indeed had a difficult time before the Third Republic and this had slowed down the projects then being run. And afterwards, during the period of renewal and adaptation in the various ministries, the new cadres had a series of plans, meetings and important documents (the Five-Year Plan, the Round Table, the IBRD Negotiations etc.) to get used to.

Late 1987 was a political turning point, but although the decision on the RN2 improvement project, the coffee factory extension scheme and the Bujumbura urban road network operation was taken in 1988, the rate of payment was still slower than antici-

pated and it was only in late 1989-early 1990 that it reached an acceptable level. More projects—the Mugamba scheme, the repairs to the RN1 (linked to the Northern Corridor) and the tea factory extensions—then took off.

The new dynamism of the Third Republic led to negotiations (outside the Indicative Programme) for an ECU 12 million import programme, an ECU 24.5 million Stabex transfer (for coffee) and ECU 175 000-worth of emergency aid for the victims of the troubles in northern Burundi in August 1988.

ECU 750 000 also went to repatriate refugees and just over ECU 1 million to a regional AIDS control programme.

After signature of the Lomé IV Convention in December 1989, and thanks to the enthusiastic cooperation of the administration, it was possible to complete the balance sheet for Lomé II and III, and to commence the pre-programming for Lomé IV. The funds allocated under Lomé II and III were practically all pledged, but disbursements had only reached 62% and 14% respectively. As a result, there was an outstanding balance of some ECU 750 000 for the Lomé IV preparatory studies.

## The EIB

The EIB has provided a total of ECU 19 million since Lomé I, mainly in the form of loans to Burundi's National Bank of Economic Development (ECU 14 million) to back up industrial development and SMEs especially.

Help for the coffee and tea sectors was added under Lomé III.

The Bank is planning to step up its support for the private sector and the export trade in the new economic context of Burundi under Lomé IV, diversifying aid to the benefit of sectors such as mining and cotton.

## Stabex

Burundi submitted its first application (for about ECU 1.5 million for cotton and untreated hides and skins) in 1975. The second application, in 1980, was for ECU 11 million for coffee. It filed its 1981 application late, but had a transfer of about ECU 580 000, for lost cotton revenue, in 1984. The more recent Stabex transfers are as follows: 1986 — a further ECU 2.2 million from the overall remainder of Lomé II (5th EDF) for coffee; 1987 — ECU 24.5 million to cater for a very poor year for world coffee prices and its considerable effect on the balance of payments. The coffee sector got 65% of these transfers and the tea, rice and cotton sectors the rest; 1988 — ECU 720 322 to make up for lost tea and cotton export revenue; 1989 — ECU 19.2 million following a further drop in the coffee price on the international market.

Stabex is very important to Burundi, which greatly depends on the sales of its first class Robusta and Arabica coffees for its revenue. Tea and cotton are very reasonable alternatives today in fact, but coffee is still the most important cash crop. The Government is aware of this and is developing non-traditional exports such as fruit and flowers — with backing from the EEC.

Burundi has kept a close eye on the requisite formalities of the various EDFs and takes an active part in constituting and allocating the counterpart funds accruing from Stabex transfers.

## Structural adjustment

Burundi has had a structural adjustment programme going, with the collaboration of the World Bank and the IMF, since 1986, the idea being to iron out the major problems in the balance of payments and the State budget and to liberalise the economy to create the conditions in which the private sector can develop and exports can be stimulated and diversified.

The Government has made a serious effort to apply the measures decided



*Renewal of the RN1 in the Northern Corridor*

## Summary of Community aid to Burundi

(Situation at 31 August 1990)

Amount (ECU '000)

1st EDF (Treaty of Rome)	4 995
2nd EDF (Yaoundé I)	20 476
3rd EDF (Yaoundé II)	32 609
4th EDF (Lomé I)	62 141
● national indicative programme	58 100
● Stabex (1975)	1 486
● emergency aid	2 055
● EIB (risk capital)	500
5th EDF (Lomé II)	95 507
● National indicative programme (inc. grants of 60 700 and loans of 16 300)	77 000
● Stabex (1980, 1984)	13 812
● emergency aid	195
● EIB (risk capital)	6 500
6th EDF (Lomé III)	165 606
● national indicative programme (inc. grants 86 000 and loans of 10 000 risk capital, EIB, 12 000)	108 000
● programme for indebted countries (general import programme)	12 000
● Stabex (1987, 1988, 1989)	44 496
● emergency aid and relief for returnees	1 110
<b>Outside the Convention</b>	
— NGO (1977-89)	2 640
— food aid (not quantified)	
— World Hunger (1983-84)	2 600
— AIDS control campaign	962
<b>Regional cooperation</b> (Global amounts for Eastern Africa)	
● 4th EDF (Lomé I) (Inc. 76 000, directly or indirectly for opening up Burundi)	84 000
● 5th EDF (Lomé II) (inc. 69 000, directly or indirectly for opening up Burundi and Ruzizi II)	140 000
● 6th EDF (Lomé III) (inc. 127 000, directly or indirectly for opening up Burundi)	215 000

jointly with the IBRD and the IMF, but it has very little room for manoeuvre because it wants to maintain social equilibrium in the country and is determined to realise its focal policy of national unity.

After four years of adjustment, the major imbalances have been toned down, but the target has not yet been reached and the social situation is still delicate. However, the Government is unwavering in its determination to make a success of its policy of adjustment.

The EEC has been increasingly involved in the discussions on structural adjustment since 1989 and fully supports the authorities' balanced approach.

### Regional cooperation

Burundi, a completely landlocked territory in the heart of Central-Eastern Africa, needs to be integrated in the political and economic movements of the region. Proof of this is that, towards the end of the Bagaza régime, the country had lost contact with its neighbours and was totally isolated, but with the Third Republic's new policy of good neighbourliness, a number of communication and integration schemes saw the light of day, with the rehabilitation of the RN1 to Rwanda and the Northern Corridor and the development of a road link to Tanzania (via Musinga-Kobero). The Government is also putting particular emphasis on developing

the Economic Community of the Great Lakes and the "Southern Route". The country is also getting the benefit of the major investments being made in Uganda, Rwanda and Tanzania to integrate Eastern and Central Africa with the Indian Ocean zone.

A radical psychological change occurred in 1989 and, instead of seeing its geographical position as a handicap, Burundi now tries to look upon it as a plus point when it comes to developing regional and inter-regional markets.

### Lomé IV – 1990-2000 7th EDF (1990-1995)

ECU 126 million has been earmarked for Burundi under the 7th EDF, ECU 112 million in grants and ECU 14 million in risk capital. There is the first instalment of structural adjustment of ECU 12 million on top of this and an as yet undefined amount for regional projects.

The preprogramming discussions on EEC aid under the 7th EDF (1990-95) are closely tied up with the political, economic and social aims of President Buyoya's Government — which means a policy of good neighbourliness, commercial expansion, regional integration and diversification of exports abroad. The policy also involves rationalisation and development based on decentralisation, proper population involvement and private sector development, plus land conservation, environmental protection and birth control, at home. And all this is aimed at solid national unity and the gradual adoption of new, democratic institutional structures.

These aspirations, which are summed up in the draft Charter of National Unity and Development Charter, are a real challenge, but the EEC, Burundi's constant partner, will be coming up with programmes to support these courageous and consequential policies, doing its best to coordinate its own schemes with those of other bilateral partners in the Community and of the World Bank, the UNDP and the other major funders.

EEC-Burundi cooperation is set fair and the outlook for the year 2000—the time of the next Lomé Convention—and for Burundi's priority targets, is promising. ○

P.T.-P.



# CERAAS — the example of regional cooperation against drought

by Daniel ANNEROSE and Jean-Luc KHALFAOUI (\*)

*Now that the media have quite naturally turned their attention to other problems of our planet, we can, with greater hindsight, attempt to assess the importance of the drive to combat drought and its dramatic consequences for the people of Africa.*

*CERAAS is one of the many results of the extensive international campaign against the scourge which has been undertaken over the last decade.*

## Adapting crops to drought

We shall briefly describe the nature of this problem, which is still an everyday one in the countries concerned. For some 20 years now, the big problem in farming, particularly in the semi-arid Sahelian zone, has been the fact that the species and varieties under cultivation are not adapted to deteriorating climatic conditions, dwindling rainfall especially. The efforts the national research institutes have made to improve or at least stabilise output of those species have come up against the difficulty of deciding just what material is suitable in areas where there are major local, regional and, above all, annual variations in drought. Research teams which had been able to come up with high-performance strains thus far could not provide a rapid response to the sudden major challenge of achieving self sufficiency in food.

The reason for this is easy to see but difficult to remedy in any viable way. Roughly speaking, to every form of drought corresponds an ideal form of adaptation of the species, variety or plant and it takes more than a look at the yield obtained in conventional agronomical testing to give an exact idea of the long-term performance of any given vegetable material in drought conditions. So it is vital to identify the favourable agronomical

characteristics and understand the workings of the plant, the complex integration of which will determine the best level of yield in interaction with the drought. The selection of the most suitable vegetable material can then take both the yield, and the various characteristics and workings deemed adaptive, into account. An increase in the selection criteria increases the number of possible genetic combinations and, as a corollary, the possibility of clearly identifying high-performance material. This approach is costly in terms of human and material means, but it is the only one which holds out any hope of significant progress in this area. Yet it is rarely used and, as far as we know, Senegal is the only country in Africa to have introduced this sort of strategy to create strains of groundnuts which are better adapted to drought.

## An innovative approach

The practical application of this new concept is the basis of CERAAS' scientific activity.

The interest of the approach and the need to extend it to other crops was already apparent in the conclusions of the international conference on "Drought resistance in the tropics" run in Dakar (Senegal) in September 1984. The practical recommendation to set up CERAAS was made at an international workshop in Bamako in February 1987 on the initiative of the Drought Resistance Research Network (a sub-network of

CILSS and CORAF, the conference of African agricultural research leaders).

Three further arguments militated in favour of the recommendation:

1. Research should be stimulated by making drought victim countries' efforts dynamic and better coordinated. Emphasis should go on characterising the physiological mechanisms of adaptation to drought and on investigating them to create strains that are better adapted to edaphoclimatic conditions.
2. There should be properly equipped infrastructure to receive researchers from different countries so that they have the best conditions for their investigations into vegetable material.
3. Scientific relations should be developed and African institutions encouraged to compare their findings with other institutions in both Africa and Europe.

## From national to regional scale

The experience of ISRA (the Senegalese institute of agricultural research) in this field was such that the members of the Drought Resistance Research Network recommended it as host to the Centre. A project was drawn up for a federation involving research associations in Europe (France, Belgium, Portugal and Denmark), Africa (Senegal, Benin, Niger and Tunisia) and America (Brazil), with CERAAS as the federal centre for Africa and America.

This type of organisation provided an opportunity for ISRA to obtain four years' project financing of ECU 360 000 from the Directorate General for Science, Research and Development (DG XII) of the Commission of the European Communities. The support was provided largely because the scheme involved extending a similar operation to create strains of groundnuts which were

(\*) The authors are technical assistants at CERAAS/ISRA in Bambey (Senegal). CERAAS is the regional study centre for the improvement of adaptation to drought.

better adapted to weather conditions in Senegal, already financed by DG XII as part of the science and technology programmes for development (STD 1).

CERAAS was set up officially in February 1989 at the CNRA (National Centre for Agricultural Research) in Bambey (Senegal). A first report of activity may seem premature after such a short time. However, efficient help from the CNRA enabled CERAAS to take off immediately. A laboratory, experimental equipment, a greenhouse outfit, irrigable land, technical and managerial back-up services and CNRA accommodation were made available to CERAAS and the first researcher came for a three-month stay in May 1989. By October, seven researchers—from Mali, Burkina Faso, Guinea, Benin and Senegal—had attended, studying plants as varied as sorghum, maize, yams, groundnuts and manioc, and 13 applications for study missions were received from countries of English- and French-speaking Africa for 1990.

### A model for Africa-EEC cooperation

These figures clearly show the interest which the new body has generated in the various national research establishments. There are many reasons for this, most importantly the fact that the Africa-EEC-Brazil partnership makes CERAAS a focus for individual skills whereby joint research can be undertaken into practical problems, combining the techniques of growing crops in real drought conditions with the latest methods of investigation. The subjects of research drives at CERAAS are thus defined with the researcher in question, and study methods adapted to his way of growing crops and investigations are applied to his vegetable material. This tie-up with the local concerns of the researcher ensures significant fallout for the research establishment in question. And not only do the researchers receive significant training during the courses. They can also obtain a better understanding of their vegetable material, re-assess its potential, and estimate and make use of its ability to serve as a basis on which to



*The big problem in farming is tied up with the fact that the varieties under cultivation are not adapted to deteriorating climatic conditions and rainfall patterns*

create better adapted strains. The results will enable the African research bodies to make a more efficient job of evaluating the subjects on which they are working in this field and the presentation of local projects backed up by solid scientific results should make it easier to obtain financing from the funders.

CERAAS has a largely positive record after 10 months of activity.

This is the result of the frank involvement in the project of ISRA and the CNRA and, through them, Senegal itself. On the basis of a scheme which proved successful with a particular strain at national level, ISRA has committed its skills, its achievements and its know-how to achieving the regional dimension which is the only one known to drought.

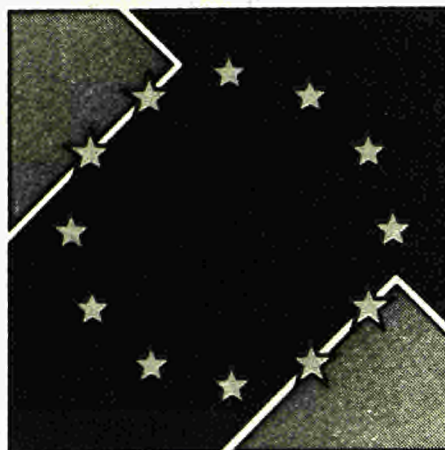
D.A and J.-L.K.

## One-stop Shopping

### Europe's Info Centres for SMEs

A film was circulating ten years ago or more called *The Twelve Labours of Asterix*, a spoof version of course of the better known labours of Hercules. One of the monumental tasks of the brave little Gaul in the film version was to obtain an official certificate from a government department, and Asterix was seen being sent from floor to floor, counter to counter, his frustration and desperation ever mounting. "Euro-guichets" — European information offices serving small and medium-sized industries throughout the Community, aim at a distinctly higher level of efficiency and customer-friendliness.

Their purpose is not actually to issue certificates but to act as a "one-stop shop" for SMEs in their catchment area for any and all questions arising out of the creation of the Single Market in 1992. An entrepreneur in Italy, for example, might want to know how to export leather goods to Ireland; a Danish candle manufacturer might enquire about the tax position if he was to establish a business in Portugal. Other enquiries might concern the possible effects of EEC regulations and directives on manufacturing. The Information Centres exist to answer these questions and so to help businessmen, large and small, facing challenges, difficulties or simply uncertainty as a result of the bringing down of trade barriers within the European Community. They do so not only through the expertise of their staff and their access to information (such as the CELEX database for EEC directives and regulations) but also through their networking with the various other EICs throughout the Member States.



In 1987, 39 Info Centres or Euro-guichets were opened, and their usefulness has been such that, since then, a further 148 have been established. For a down-to-earth view of their eminently down-to-earth work, The Courier visited one of Europe's Info centres to witness the European Single Market in the making.

The Euro Info Centre (South Holland) operates in somewhat cramped conditions in a quiet and leafy area of The Hague. The office (and it is, so far, only one room) is housed within the city's Chamber of Commerce building, but it also serves the membership of six other South Holland Chambers of Commerce and is jointly funded by them all.

There are two permanent members of staff—Maarten Rooderkerk, the Executive Manager, and Anne Ingeborg van Luijn, a Counsellor, and they are helped in their work by Anouk Swellengrebel and by a stagiaire. The Centre has been in existence for less than a year, and they have had so much work that they haven't yet had time to report to the Chambers of Commerce (which fund them, through members' registration

fees) or to the EEC Commission (which initiated the Euro Info Centres project, provided start-up grants and training for staff) on the numbers of 'cases' they have dealt with, though they reckon it must be of the order of 50 a month.

A telephone call to the Centre does not, of course, always amount to a 'case'. Simple questions can often be answered immediately, or within a very short space of time, after consultation of the Centre's own documentation or of the Celex database. Much of Maarten Rooderkerk and Anne Ingeborg van Luijn's work involves obtaining information from other EICs throughout the Community, and for this reason staff are required to be fluent in at least one Community language other than their own and, in practice, are likely to be able to speak or understand several. (The staff of the Hague Centre, for example, can between them communicate in seven). They are also, for obvious reasons, required to be experienced in data processing.

Businesses learn of the existence of the Centre through Chamber of Commerce publications or through their own promotional work—speeches given or stands taken at exhibitions. Over 98% of Dutch businesses are small and medium-sized—that is, according to the Community definition, businesses of up to 500 employees.

The Dutch definition puts the figure at up to 200 employees, and, as defined, there are 625 000 SMEs in the Netherlands, of which 125 000 are in the South Holland EIC's region. About 10% of that number, the Centre reckons, constitute potential 'clients'—businessmen who in one way or another are, or could in future be, affected by the creation of the Single Market.

The enquiries the Centre receives are wide-ranging. Anne Ingeborg van Luijn, for example, had just



taken a call from a firm importing lamps into Spain whose goods were being held up at customs for lack of a certificate of conformity. The firm, used to dealing with "older" Member States, who, since the 1983 Low Tension Directive governing the specifications of lamps, no longer require certificates, wanted to know how to obtain them. The Info Centre

very day, and making no mention of the caravan industry—would have been very damaging to it. A Dutch MEP was contacted and the item was provisionally removed from the Parliament's agenda to allow for further consideration.

These examples are illustrative both of the kind of "one-stop shop-

rent. We tell them that the first two hours of consultation are free, but that after that, the service has to be paid for. That is usually enough to put off enquiries which are not genuine".

If a service required is likely to be very complex and/or time-consuming, the Centre will direct the client



The Courier

*Maarten Rooderkerk, Executive Manager of the South Holland EIC which was established with 1992 in mind. Mr Rooderkerk is convinced that EICs will still be needed in 20 years' time*

was not only able to give the firm the information required, but actually to provide them with a sample of the kind of certificate required. Another company had telephoned the day before to say that they had been told that certain of their imports from Germany were mounting in cost because of a steep rise in the country's gas prices. Was this true, the manager wanted to know and, if so, why? The Centre contacted a gas company in the Netherlands, ascertained that this was, indeed, the case, and that it was due to taxes and inflation and informed the client accordingly.

Occasionally the Centre is required to act with unusual speed, as had been the case recently when a proposal for a directive on the use of glass threatened the interests of a South Holland business. The firm was a major supplier of acrylic windows used in caravans, and the proposal as it stood—by then on the agenda of the European Parliament that

ping" which the Centre seeks to offer—the ability to deal with an enquiry completely, not simply to pass enquirers on to other addresses however useful—and of the way in which the supply of information can be two-way. Unfortunately, in Maarten Rooderkerk's experience, many SMEs regard 1992 more as a complication than as an opportunity, adopting an "ostrich mentality" to the changes going on about them in the belief that they can in no way influence them. This is not so: the feedback from firms through the EICs (as the case of the window supplier shows) is valuable both to the Community in general—in promoting free and fair trade—and to the firms themselves.

Was there not a risk with this kind of service, we asked, that firms took advantage of the Centre, asking it in effect to do their work for them? Yes, admitted Anne Ingeborg van Luijn, that did occasionally happen. "But we have a very effective deter-

to the various consultancies specialising in this kind of work.

The Euro Info Centre project was specifically designed with 1992 in mind, so what will happen to the 187-strong EIC network once the Single Market is established and functioning? The official answer is that the initiator of the project, the EEC Commission, has not yet made up its mind: unofficially it is taken, as read, that, one way or another, the network will continue to operate. Maarten Rooderkerk, for one, frustrated at his inability—with such a small staff—to do more, believes that there will still be work for Centres such as the South Holland E.I.C. in 20 years' time. It seems, on the face of it, highly likely. The full achievement of the Single Market, whether it happens in 1992 or later, will not mark the end of the need of Europe's small and medium-sized enterprises for information. And, if EICs are still in existence, SMEs' labours then—as now—will be considerably less arduous. ○ M.v.d.V.

### The Euro Info Centre initiative

A key step in the Community's Action programme for Small and Medium-Sized Enterprises was the launch in 1987 of a network of Euro Info Centres, providing information to companies on all aspects of Community affairs—its policies, regulations and projects.

There are now 187 Centres, throughout the Community, and addresses, or any other details on the EIC project, may be obtained from:

**Commission of the European Communities**  
**DG XXIII/Euro Info Centres**  
**Rue de la Loi 200 ARLN**  
**B-1049 Brussels, Belgium**  
**Administrative Help Desk 235 50 41**  
**Telephone Exchange (32-2) 235 11 11**  
**Telecopy/Fax (32-2) 235 73 35**

## IRRIGATION



Many ACP countries have high demographic growth and are forced to produce ever greater quantities of food for a constantly expanding population or resort to costly imports to make up for their shortfalls. Cereal purchases in sub-Saharan Africa rose from 3.4 million tonnes in 1970/71 to 9.5 million tonnes in 1982/83 and the FAO, the UN's Food and Agriculture Organisation, suggests they could reach the 40 million tonnes mark by the year 2010 if the downward trend in per capita food production continues.

Developing irrigated agriculture is one way of heading off these gloomy predictions. The number of harvests this method guarantees producers every year is protection against the climatic uncertainties inherent in growing rainfed crops and has long encouraged many an ACP government to see it as a way of achieving self sufficiency in food. Over the past few decades, some 2.1 million hectares of modern land developments have been added to the plots already under traditional irrigation in Africa.

Although irrigated agriculture, particularly by modern methods, is a relatively recent development in some places, it is known and has always been practised in many others. Be it rice grown on flood

plains by the rivers, crops produced on valley floors, mangroves, palm groves or market gardening in oases, there are plenty of examples of partial and total water control in farming.

This technique, first found in Egypt and Mesopotamia four thousand years ago, is used on about a fifth of all arable land and sustains 40% of the world's agricultural output. The Community and other funders have financed a large number of irrigation projects in the ACP countries, especially in the regions like the Sahel, where rainfall is unreliable, but in many cases the results have not come up to expectation. As this dossier shows, there are many reasons for this, not least the fact that people have sometimes gone for vast hydro-agricultural schemes which are very complicated to manage. The trend nowadays is away from large-scale operations and towards very promising small village plots.

The dossier also looks at the way irrigation works affect the environment, discusses agricultural diversification (all too often irrigation is still synonymous with rice or sugar cane crops) and the use of underground water and gives case studies of one or two irrigated plots of land and the problems they encounter. ◊

A.T.

## Irrigation in Africa: a potential for small units<sup>(\*)</sup>

Agricultural production and the food supply of most Asian countries are now a great deal improved, but the same cannot be said for most of Africa or Latin America and the Caribbean.

Figure 1 shows per capita agricultural production. It is apparent that the recent performance of the three developing regions has been radically different. In Asia, per capita agricultural production has increased at an average rate of 1.3% per year which has been largely due to the development of irrigation. In Latin America it has shown little change. In Africa, it has been falling at an average rate of 1.1% per year.

### Population-supporting capacity of land

To what extent are the difficulties that individual countries or regions experience in producing enough domestic food for their existing populations the effects of adverse environmental circumstances: soils, rainfall, day length, temperature, fertility, and so on?

FAO sought to clarify this question in its study of the potential population-supporting capacity of the lands of the developing world. This work involved the mapping of a great many agro-ecological zones within which

(\*) This article has been prepared by the Land and Water Development Division of the United Nations Food and Agriculture Organisation (FAO).

the main environmental parameters that influence agricultural production were judged to be reasonably homogeneous. The crop-growing potentials of each zone were evaluated at three different levels of agricultural inputs. These input levels were designated low, intermediate and high. The low level represents traditional farming practices in Africa, while the high level is equivalent to the technology of modern commercial farming. On average, the ratio of yields between these three input levels is about 1:4:10.

Table 1 reveals the main deficit regions, i.e. the regions where rainfed production potentials are insufficient to produce enough food for the expected population. In this context, Africa and South America offer a positive balance and show that, from the resource point of view, the predicted population can be easily supported. Unfortunately, within Africa large differences exist among the countries; those located north of the Sahara will be able to meet the demands of growing populations only by an intensive use of agricultural land through irrigation and better production techniques.

### Irrigation potential in Africa

For countries whose actual population exceeds the low input, rainfed potential population-supporting capacity of their land resources, irrigation

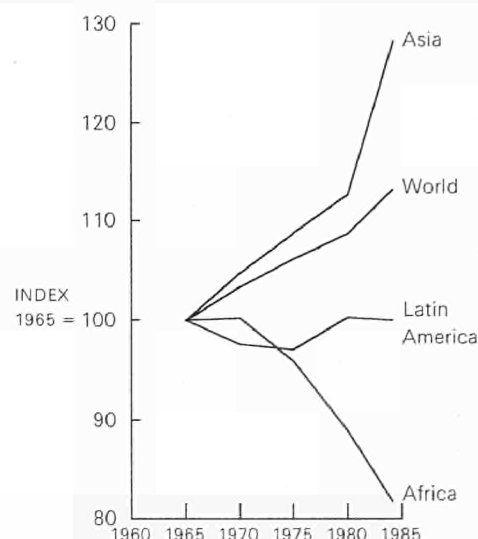


Fig. 1: Indices of agricultural production

is one of the principal policy options to rectify the situation.

Even in those countries where long-term average climatic conditions are quite adequate for rainfed production, recent experiences have made African governments keenly aware of the problems of climatic variability. Transport deficiencies and national boundaries make it more difficult in Africa than elsewhere to attack such problems by moving crop surpluses from wetter to drier regions. One consequence is that protective irrigation is currently seen as an important aim to ensure food security.

Irrigation makes heavy demands upon water resources in comparison with other human uses of water. It is difficult to make general statements about the role of irrigation in national water budgets because so many external variables are involved and data are not particularly good in this area. Nevertheless, FAO attempted to estimate the irrigation potential in Africa

Table 1: Potential population-supporting capacity under rainfed agriculture in the year 2000

	Estimated population year 2000 (in millions)	Population-supporting capacity:		Excess/deficit:	
		Low input	Medium input	Low input	Medium input
Africa	820.6	999.6	4 248.8	+ 179.0	+ 3 428.2
South Asia	2 145.1	677.7	2 630.6	- 1 467.4	+ 485.5
South America	356.5	1 235.2	5 157.7	+ 878.7	+ 4 801.2
Central America	188.5	104.8	369.4	- 83.7	+ 180.9

Table 2: Irrigable area of Africa

Scenario	Total potentially irrigable area (km <sup>2</sup> )	% of Africa
Upland crops - best soils (UB)	293 000	1.0
Upland crops - best suitable soils (UT)	1 054 000	6.4
Lowland crops - best soils (LB)	1 073 000	3.5
Lowland crops - best suitable soils (LT)	2 194 000	7.2

## The different kinds of hydro-agricultural development

There are three main methods of irrigation. The commonest, surface irrigation, accounting for 95% of all installations, involves pumping or gravity feeding water from rivers or reservoirs along channels to the fields. Then there is sprinkler (or drip) irrigation, in which water is pumped under pressure along the pipe system and sprayed over the crops. And there is drainage, a little used method, which involves altering the level of groundwater so it reaches the roots.

The ACP countries have various types of hydro-agricultural development, with varying degrees of water control, and an FAO study of irrigation in sub-Saharan Africa has described the three main ones according to size.

**Large plots.** This means more than 500 ha and as many as 10 000 ha or even more, usually developed with State financing if not actually nationalised. Such plots are either under direct State management or allocated, through an irrigation agency, to smallholders and most of them use surface (gravity-fed or pumped) irrigation, although one or two also have sprinklers. In most cases these are modern developments with 100% water control. The biggest of them are in Sudan (the Gezira project and its extensions), but Mali, Zimbabwe,

Cameroon and others also have them.

**Medium-sized plots.** These plots, which are between 50 and 500 ha, show greater variation. Some are developed and run by public bodies or cooperatives, with or without the help of the State, and some are private (commercial) plantations and they use pumping and gravity-feed methods of irrigation.

Examples of this size of development are to be found in Niger, Mauritania and Madagascar.

**Small plots.** These, areas of less than 50 ha, are by far the most varied. They include high- and low-water developments on flood plains, in internal valleys and coastal swamps and on the edge of lakes, as well as systems involving small earth dams and gravity-feed, manual and mechanical pumping methods from water courses and wells. Plots of this size, which are run by independent smallholders or groups of peasants, tend only to have partial water control and many of them, which depend on natural high-water levels, can only be used in good years. There are examples aplenty in West Africa (Ghana, Senegal, Guinea, Liberia and Mali) and East Africa (Tanzania and Kenya). ○ A.T.

by country and major hydrological basins, using available information and Geographic Information Systems (GIS).

Table 2 gives a continental summary, which throws a relatively positive light on future possibilities. However, it also shows that the "best soils" that can be developed at relatively low cost represent only 4.5% (13.7 million ha) of the total area of the continent.

A closer look at the arid and semi-arid zones of Africa shows that irrigation potential is limited. In several countries, including Egypt, Libya, Chad and Sudan, the availability of water resources for new developments is limited.

The study showed that Africa does

not have the same terrain types as those on which irrigation has expanded so rapidly in south Asia. There are not as many large rivers, and their alluvial valleys are usually much smaller. This means that African irrigation will develop in smaller, more dispersed units. Smaller, often non-perennial streams have to be utilised, and the information on these is often poor for planning purposes.

### Problems and achievements in irrigation development

A regional assessment of the progress made in the implementation of the Mar del Plata Action plan was completed recently. The Action Plan had been adopted by the 1977 United Nations Water Conference which pro-

claimed the International Drinking Water and Sanitation Decade (1981-90). It is useful to recognise the problems that hampered its full implementation and to take them into consideration for the future development of irrigation in Africa.

The economic crisis that affected many African countries resulted in lack of adequate funding, not only to support the improvement of existing irrigated areas and their planned extension but for day-to-day operations and maintenance requirements. This resulted in further deterioration of existing irrigation and drainage systems and associated infrastructure. The farming societies, particularly the small farmers, are generally demoralised by depressed incomes caused by the decline of crop prices and high costs of production and living. Economic reforms and recovery programmes that characterised the decade in most African countries aimed more at rehabilitation of existing systems than at area expansion. While this was thought to be a wise route to economic recovery, in many instances there were negative consequences. Population pressure on the existing developed areas and the dislocation of population to urban centres increased shortages of agriculture labour in many areas.

The African drought, which reached its climax in 1983/84, not only impeded the implementation of the Mar del Plata Action Plan but had far-reaching implications for water-related problems.

These tragic circumstances and events that characterised the decade have, however, sharpened the awareness of the vital role of water management for the stability of the environment and the sustainability of the natural resources base and production capacity.

Persistent drought led to the development of many techniques and approaches to appropriate agricultural practices, including soil water management, improved pasture and water harvesting.

Irrigation has been a subject of major concern in the different developing regions. In Africa, especially in the aftermath of the drought, the role of irrigation in food production was over-emphasised. In many of Africa's

humid and semi-humid areas, over-ambitious irrigation programmes continue to dominate the thinking of planners despite their high costs and poor economic viability.

But a number of African countries, particularly in the sub-humid zone, now recognise the advantages of small-scale irrigation development with involvement of peasant farmers, as seen in Ghana, Ethiopia and Tanzania.

Erosion and sedimentation, which are creating serious and costly problems in the operation and maintenance of many schemes, are also now receiving more attention in most countries.

Despite these achievements, major constraints continue to impede the realisation of the target levels for the productivity and sustainability of agricultural production in Africa:

— The arid and semi-arid zones are witnessing a serious breakdown of the natural resources base and collapse of traditional socio-economic systems that were compatible with the environmental fabric. This is the result of persistent drought in combination with poor management technique under water scarcity conditions and the absence of comprehensive land and water use strategies.

— In the upper catchments of river basins in the humid and sub-humid zones, water-induced erosion, which results from over-exploitation of forests and vegetative cover in the absence of effective check works, is posing serious problems.

— Water-logging and salinisation continue to be a major problem north of the Sahara and in limited areas of the sub-humid zone.

— Climatic fluctuation and erratic rainfall in the semi-arid and sub-humid zones are major problems. There still are wide gaps in the data base relating to soils and water. The lack of systematic analysis to determine the probabilities of occurrence is still a constraint for crop management relative to rain patterns.

— The irrigation sub-sector, particularly in the sub-humid zone, continues to suffer from a number of constraints, among them the absence of irrigation traditions among small farmers and the poor performance of parastatals.

## MAJOR REGIONS OF AFRICA



Source: FAO / Africa South of the Sahara

### Challenges and future opportunities

In almost all the African countries, agriculture will remain for a long time to come the primary sector for economic growth and poverty alleviation. In almost all countries, over 80% of the populations live in rural areas and constitute the major agricultural producers, particularly in the rainfed and livestock sub-sectors. Increasing productivity and sustainability in both food and export crops remain the major challenge of the 1990s.

In formulating strategies for the 1990s, the role of water needs to be viewed in its proper context within the process of economic and social development. The primary source of economic growth in Africa continues to be based on increasing productivity through proven technologies that ensure sustainable use of land and water resources. The irrigation strategy needs to focus on the development of small-scale irrigation schemes

with emphasis on implementation and operation by farmers' groups.

For countries where water is scarce, comprehensive strategies for land and water management are vital to maintain the sustainability of the resource base, to protect the environment system and to arrest degradation caused by drought in arid and semi-arid zones.

Governments should provide more support to small-scale irrigation through rural infrastructure, extension, training and research. Effective government participation and efforts to develop human resources, enhance capacities of water institutions in policy planning, monitoring, evaluation and assessing the environmental impact of irrigation are vital for the mobilisation of peasant communities. The small farmers command a vast production potential through proper management and development of water resources. Their efforts could help to sustain the primary role of agriculture in economic growth and development. ○

# The environmental impacts: disaster or development

by C. A. DRIJVERS (\*)

Irrigation projects often do not fulfil the lofty expectations that are usually raised in the pre-project documents. The problems that arise are often described as technical, organisational or economic. Environmental problems complete this picture. They are strongly interwoven with the aforementioned aspects. In some cases the environmental problems have a disastrous impact on the lives of local people. Some examples are given below.

In the 1970s large scale development of irrigation in the Senegal delta appeared to have contributed to an economic and environmental disaster. Due to regular flooding by the river Senegal, the delta was the principal dry season grazing area for cattle herds that used to come from all over northern Senegal and southern Mauritania. As a result of the construction of a river embankment the 2 400 hectares in the southern part of the delta became a dry, desert-like zone, which could barely be used by herds. After

(\*) Programme for Environment and Development, Centre for Environmental Studies, BP 9518, 2300 RA Leiden, The Netherlands. Telex 39427 RUL; fax 071-277496.

construction it was found that the salinity of the soil was too high for economically sound agriculture. During the late 1970s and early 1980s, some 5 000 hectares of Sahelian land was opened up for irrigation every year. However, the same number of hectares was lost annually due to waterlogging and salinisation.

After completion of the Aswan Low dam the incidence of schistosomiasis in some areas in Egypt increased from 21% to 75%. Following the construction of the High dam, this percentage even reached 100% in some villages. In the 900 000 hectares of irrigated areas of the Gezira project in Sudan the general level of infection is 60-70%; among school-children it is more than 90%. Almost all the children in the irrigated areas around Lake Victoria in Kenya are infected with this disease.

Development of irrigation in Asia is more widespread and successful. It profits from experience that has been gained over centuries. Nevertheless, a number of modern settlement schemes show very disappointing results. Erosion and sedimentation, rapid silting

of reservoirs, scarcity of firewood and timber, encroachment of reserved areas, destruction of wildlife populations, occurrence of water-borne diseases, underdeveloped "home" gardens and malnourishment appear to be the major problems.

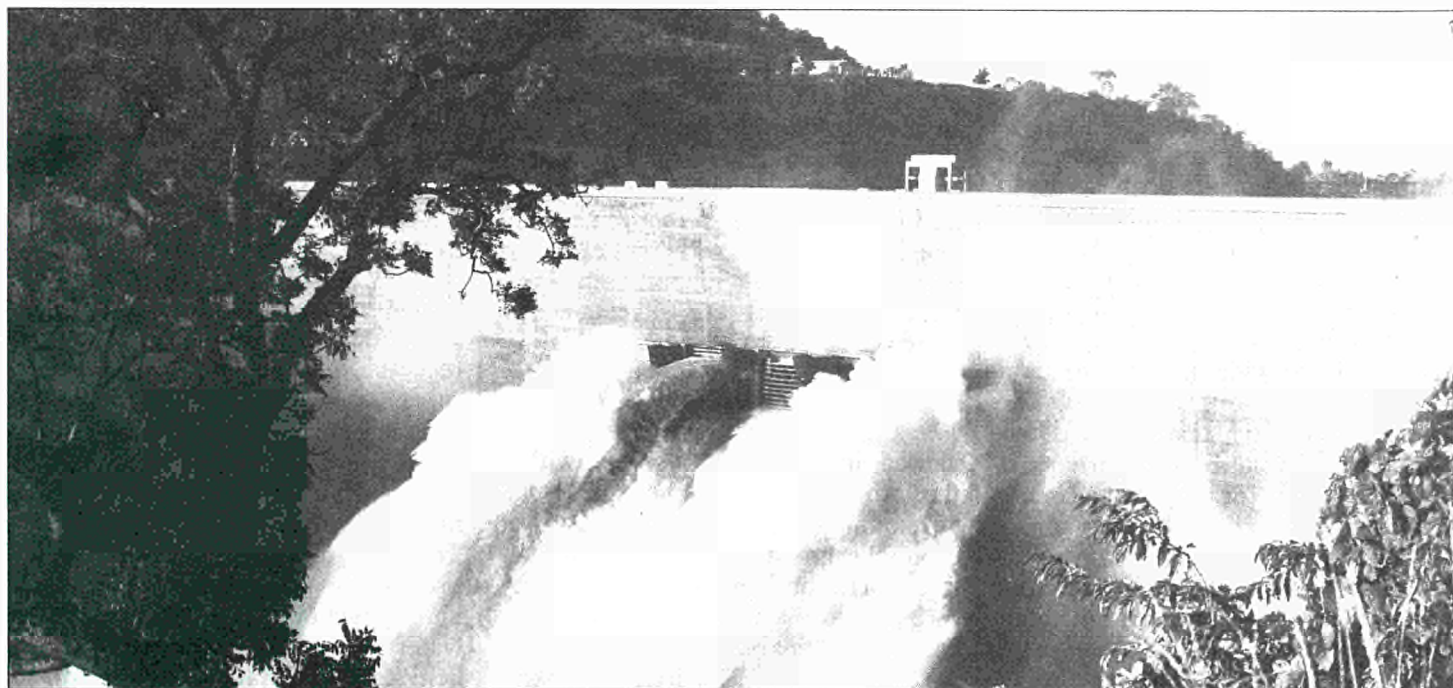
These depressing examples underline the need to have a more systematic look at environmental impact and their causes. Furthermore, in the second part of this paper, the question of how irrigation could have a positive impact on local people and their environment will be dealt with.

## Disturbance of the water regime of rivers and floodplains

Changes in water use to dams and irrigation projects consist mainly of a reduction in total discharge and particularly in peakflows, accompanied by increased base flows. Due to these changes the dynamic characteristics of flooding are altered. The area flooded becomes smaller, especially in dry years, and the duration of flooding is shorter with it beginning later in the year. This reduction of flooded area disrupts the existing land use systems.

## Disruption of existing land use

The reduction of flooding and conversion of wetland into irrigation per



The Kariba dam over the Zambesi

*The construction of dams disrupts the water regime of rivers by reducing the flooded areas*



**Overhead irrigation in Zimbabwe**

*Complete removal of native vegetation surrounding irrigation fields eliminates cover and habitat for wildlife*

imeters leaves less wetland area for traditional agriculture and grazing. The area that does remain is subject to greater pressure, and overgrazing, overfishing and deforestation will occur. Pressure grows because population concentrates around development projects and artificial lakes. Over-exploitation will consequently spread onto the higher ground as well, e.g., in the form of shortened rotation and overgrazing cycles. Overgrazing normally starts with a shift from perennial grasses to annual, less edible ones followed by bush encroachment. When reduced flooding hampers the recharge of groundwater bodies, lakes and other watering places, cattle will concentrate around remaining watering points, traditional migration routes will be altered and potential pastures may become out of reach. Often nomads are most seriously affected by modern development, because irrigation perimeters are less suitable for extensive grazing systems.

### **Disruption of new irrigated crop production**

Soil salinity is seriously affecting the productivity of one third of the world's irrigated land. The problem of soil salinity is more serious in arid and semi-arid regions. Especially when waterlogging occurs, soil salinisation can render the land useless for crop production. As the water table rises under waterlogged conditions, salts concentrated beneath the root zone are dissolved and carried to the root zone or to the surface where they are deposited as the water transpires or evaporates.

Monocultures are particularly vulnerable to pest species. Animals with high reproductive rates and high mobility will quickly take advantage of the geographically-concentrated, bountiful yield of an irrigated field. Insects, rodents and some birds can be characterised by these qualities. In fact, in many areas the most serious threat to agricultural productivity is not related to soil moisture, fertility or climate, but to losses from agricultural pests. It is not uncommon for developing areas to have crop and storage losses of over 50% due to insects, rodents and birds. The problem is exacerbated by irrigation practices that reduce natural predators of agricultural pests. Complete removal of native vegetation surrounding irrigation fields eliminates cover and habitat for larger predators, such as snakes and birds, which prey upon insects, rodents and seed-eating birds. And finally, poison for rodents and birds may eliminate predators as well as vermin, ensuring a continued reliance on expensive poisons. Rarely do agricultural schemes, irrigated or rainfed, seek to exploit the contribution of natural predators by providing habitat requirements for their existence.

### **Water quality problems and health**

Run-offs from irrigated fields contain salts and toxic chemicals. The low water quality changes downstream habitats, usually favouring the most tolerant, least desirable species.

Furthermore, the reduction of downstream flows has several adverse

effects on aquatic ecosystems. Not only are the wastes and toxins more concentrated, but the water carries less oxygen, so that the added organic wastes increase the biochemical oxygen demand to the point that all available oxygen is used for decomposition and none is left to support aquatic animals. Proliferation of algae and waterweeds caused by elevated water temperatures and increased nutrient loads from fertilisers further reduces water velocities and increases oxygen demand. Important fish spawning areas may be eliminated by reduced flow, chemical additives or sedimentation as a result of erosion.

One of the most common diseases in Africa influenced by irrigation is schistosomiasis (bilharzia) which is caused by a flat-worm that lives part of its life in watersnails and part in human bodies. The mature worm settles in the bladder or intestines. Its eggs have sharp hooks which irritate the affected organ. Sometimes the patient recovers before serious damage has been done, but often the victim is seriously affected and becomes listless. Furthermore, blood is found in the urine or in the faeces. A further consequence is that other diseases are likely to develop. Schistosomiasis (also known as snail-fever) and malaria tend to go together. The schistosoma-snails settle with ease in slow moving channels, while the stagnant water in irrigation schemes forms an ideal habitat for the reproduction of malaria-carrying mosquitoes.

Another health problem is the indiscriminate use of agrochemicals

which are flushed with drainage water and thus contaminate water which is used for drinking and washing. An indirect effect of modern projects is a shift in diet from a diverse and protein-rich package towards a carbohydrate-rich menu almost entirely based on grains like rice. In some regions of Burkina Faso rice production has doubled but undernourishment of children has increased because rice is viewed as a cash crop and the income goes to the menfolk who spend it on prestigious activities and consumer goods. At the same time, women are forced to spend more time on cash crops and hence neglect their own gardens.

### Loss of wildlife and birds

Larger mammals such as elephants and wild ungulates are especially affected, when irrigation is linked with the settlement of people in areas that were not inhabited before. Habitat loss for these animals may also occur due to reservoir construction; not only will reservoir areas themselves be lost as habitats but, due to spontaneous settlement in the wider environs, larger mammals will be faced with extinction.

Downstream flood reduction may lead to severe losses of wetlands that often support valuable wildlife species. Another cause of wildlife losses is the fact that canals, reservoirs and larger irrigation polders may block the migration routes of ungulates.

Larger water management projects in wetlands may deprive many bird species of their favoured habitats such

as mud flats, marshes and undisturbed water courses. On the other hand, reservoirs and irrigated fields provide a new habitat. Reservoirs only form good bird habitats when certain conditions are fulfilled. Shallow reservoirs with an irregular coastline and gradually sloping shores have many more possibilities than the more common deep reservoirs with straight edges.

Some bird species will be favoured by the increased production of rice. On the other hand, the use of chemicals will result in poisoning of birds, and more importantly in the reduction of their prey such as insects and fish.

### Environmentally sound large scale irrigation and water management

Because of porosity, sandy soils are not very suited to surface irrigation. Large scale irrigation in Africa has been developed mainly on alluvial soils and often in river floodplains. Without dams and irrigation, African floodplains already support a combination of fisheries, herding and wetland agriculture. These existing production systems together can be more productive than large scale irrigation, taking into account their multifunctionality, their self-regulating capacity and the often weak performance and adverse side-effects of large scale irrigation.

This, however, does not mean that all large scale water management experts should refrain from interfer-

ing in the river basins. There is a lot to do in this field, optimising the water management of existing dams and conducting experiments with artificial flooding in order to strengthen normal flooding patterns and avoid severe droughts. Very productive water management work can be done with a view to the part-restoration of flooding patterns in floodplains that have dried out due to existing hydro-agricultural interventions.

While developing options for sustainable production, one should have a closer look at the precise functioning of the ecosystems in question and at examples of sustainable use.

### Environmentally sound small scale irrigation

Small scale irrigation may have a positive impact on the local environment and socio-economy, assuming that it results from an integrated resource management approach that gradually develops through an equitable partnership of local farmers and experts. This may be regarded as a somewhat theoretical proposition but a good practical illustration, based on a project conducted by Misha and Madhu Sarin (1987), is described below.

This project lies in Sukomajri, a village at the foot of the Himalaya mountains. Deforestation, erosion, and the rapid filling of downstream reservoirs with silt from uphill catchments, were common problems in the region. The government tried to deal with these problems by restricting land use. Herding and wood-cutting were allowed close to villages but more remote areas were set aside, sometimes by fencing them off. The local population disagreed with these regulations and continuous control by officers of the Forest Service was not feasible.

It was discovered that the erosion was at its maximum in the surroundings of the village of Sukomajri, situated on the plateau and close to its edge. The inhabitants practised rainfed agriculture on the plateau around the village and they kept livestock. Altogether they had a few hundred head of cattle and a large number of goats that could often be found grazing on the already heavily



**Sugar estate in Zambia**

*Run-off from irrigated fields contains salts and toxic chemicals*



eroded pastures of the hill. The researchers decided first to measure the speed of this erosion process. For this purpose they constructed a small dam in an erosion gully to see at what speed it would silt up. Not only sediment but also water was caught behind the dam and in the dry season the vegetation around it remained fresh and green. The people of Sukomajri became interested and asked the researchers whether they could make a second larger dam from which they could irrigate their fields.

The assignment given to the researchers however was to control erosion and not to initiate irrigation. Moreover the village fields were not a part of the project area. On the other hand, they understood that the participation of the villagers would be indispensable in their attempts to stop the overgrazing and erosion of the hillside. After long discussions in the village they decided to approach their institute and the supervising representative of the city council, with a view to convincing them of the urgency of concluding an agreement with the people of Sukomajri. The deal was simple and clear. The project would construct a dam to enable irrigated agriculture to take place and the villagers in turn would remove their goats and cows from the hill.

Within two years, the irrigation programme had commenced. The researchers were very disappointed to see that goats and cows were still on the hills, although there were fewer than before. When they complained about this to the villagers a conflict situation arose. The villagers who still had cattle on the hills resented any suggestion that they could be dictated to by the researchers. The same villagers also complained, during further talks, about the fact that they did not profit from the new irrigation. Either the location of their field was too far from the dam and water reservoirs or they had very little agricultural land in any case. It thus appeared that the unequal distribution of access to land and water formed an obstacle for the proper functioning of the negotiated solution.

After much debate and negotiation, it was agreed that the agricultural fields should be redistributed in such a way that every household would have an irrigable plot of sufficient

size. Further a Water Users Association would be established to organise the distribution of the water. One representative of each household would become a member of the Association. Each member would receive a share of the water. The household would lose its water rights, however, if its livestock were to be found grazing on the hill. After two years the villagers' appreciation of the project increased. Living conditions had improved, goats were increasingly replaced by milk cows (kept in a stable), the hills gradually regenerated and grass production also increased. Hitherto, the right to cut and harvest the grass had been leased to a private enterprise, which in its turn, subleased to the villagers. Since the productivity of the hills was now increasing due to better management by the villagers, the Forest Service decided to lease the exploitation rights directly to them. The village community itself took care of collection of the licence fees. The price for the local people was now lower and, furthermore, a proportion of the fees collected remained at the disposal of the villagers. They decided to reinvest this in the management of the hill (amongst other things, through the buying of seeds and seedlings).

Within the village it was the Water Users Association which organised this and, as a result of the developments which had taken place, its name was changed to Hill Resource Management Society. The significance of the events in Sukomajri was not lost on the other villages at the edge of the plateau and by 1987, 18 of them had formed their own Hill Resource Management Societies.

This case provides an example of how the application of the earlier applied principles led to a sustainable project, that could be handled and replicated by other local communities. The researchers prompted by the need to focus on problems, were obliged to go beyond their original remit.

Setting aside their original intentions and suppositions, they negotiated the first stage to be undertaken with the farmers. This stage, the construction of the dam, led to the emergence of a conflict. The researchers and farmers learned from this and negotiated changes in the way the new resources were to be managed. In this

manner, the socio-economic and ecological objectives of both farmers and the researchers could be achieved.

### Recommendations for EEC-ACP cooperation

When dealing with irrigation, experts should avoid preconceived solutions and should instead be willing to analyse local resource management problems in close cooperation with local communities.

Planners and developers should be prepared to expend significant effort in achieving a genuine understanding of current rural problems and needs in their programme or project area. Correct diagnostic data, that are the product of a fruitful working relationship with local people, are of more value than a hundred so-called solutions that result from a series of more superficial expert surveys. Such a working relationship also allows farmers to harvest information from us, and to formulate and select their solutions too.

Information on environmentally sound irrigation/water management, on the various experiences involving the sensible use of wetlands and on the conservation of critical wetland areas and resources, should be made available to ACP countries<sup>(1)</sup>. Such information, however, should not only reach national planners and developers but also local communities, local government departments and local NGOs. Accordingly, much more should be adapted for specific situations and local people, and should be translated into their language. Furthermore, the development of environmental courses in agricultural universities and other rural development institutes can help to prepare future planners and developers for their task.

Nowadays, man is able to communicate with space-ships that are far away from our planet, but information which is vital to people in their struggle with environmental problems still cannot be found on the spot in the local language ○ C.A.D.

(1) The Centre for Environmental Studies is preparing a Resource Guide on the wise use of Inland Tropical Wetlands. The research for the book is funded by the EC. In 1992 the book will be sent to all EC delegations in ACP countries.

# Big hydro-agricultural developments – Foreseeable drawbacks can be avoided

by Serge PIVETTA (\*)

There are many reports and evaluations to show that big hydro-agricultural developments have technical, human, financial and institutional problems to cope with, while small traditional irrigation schemes, which are cheap and use whatever material comes to hand, can put up quantitatively and qualitatively outstanding performances because they are production units on a human scale — i.e. within reach of the rural populations which use them.

Strikingly, most of the studies and reports come to the same conclusions on the same problems and the same shortcomings, including in countries where irrigation is a longstanding practice — Madagascar, for example, has difficulties with land and land ownership, hydraulic resources and water management, training and supervision, dues and maintenance, exploitation, outlets, the price paid to

the producer, economic returns and viability.

However, the conclusions of investigations of completed schemes in the field rarely stress the means that could be used to prevent some of the drawbacks recorded.

Studies may well not solve the problems facing hydro-agricultural developments, but they can at least provide the beginnings of an answer to some of those which occur regularly.

Most studies, in fact, put priority on areas which can be irrigated with the water resources already inventoried.

Hydraulic investigations and statistical data are either too old or incomplete and have to be interpreted with care, particularly since the 1970s, when rainfall began to decline, particularly in the Sudan-Sahel.

Nevertheless, when planners and irrigation engineers have the relevant information on water resources, they

decide how much the crops need in the light of conventional empirical formulae. At this stage an important theoretical element comes in — the efficiency of the irrigation network of the particular plot, i.e. the percentage of irrigation water delivered to the entrance of the plot and used for a given crop (minus any loss through run-off, seepage and, most important, the way the final user, the peasant, controls and manages the irrigation water).

## Over-optimistic planning

Efficiency calculations are usually thought to be over-optimistic, as they fail to take account of the nature of the terrain and the figures they come up with are too high. Although loss due to run-off and seepage can be worked out properly for the various types of soil, the management ability of the farmer, who uses his irrigation network more according to how much running water is available and rarely according to the actual needs of the crops, is all too often overestimated. He frequently thinks that the more he waters the crop, the better the harvest will be. The water is used badly, of that there is no doubt, and this fact needs to be borne in mind when the various calculations are made.

The figures for flows from the irrigation installations and to the plots tend to be lower than those required to meet the users' needs. For example, a theoretical need (notional continuous flow) of 11 seconds per ha with an efficiency rate of 80% at the pipe-main and in the network and 80% at the plot would mean a delivery of 1.56 litres of water per second per ha.

However, if a lower efficiency rate which takes account of the realities of the terrain and the management abilities of the farmer is used (70% for the output and the network and 60% at the plot), then 2.38 l per second per ha has to be delivered, i.e. 52% more

(\*) DG VIII, Commission.



*Calculations tend to lead to smaller flows that are required to cover the users' needs*

EDF/Drachousoff



### Irrigated rice crops in Senegal

*Peasants do not always grow two crops a year, which is one of the advantages of irrigation, because they find it difficult to stick to the agricultural timetable*

than in the first case. And the difference could be great if the output is long and/or there is little or no maintenance.

Efficiency should not be overlooked. Realistic utilisation of this factor can prevent many a problem once the development work has been completed. For flows worked out in this way will be used to calculate the irrigation installations and channels in the light of the peak needs of the crop in question over the year and the time spent on watering and irrigation.

The irrigation engineer will tend to calculate the general flow and the various modules fairly closely, with the understandable and logical aim of reducing the size of some investments (the pumping station, for example, the pipemain or the feed channel, the various culverts etc) and covering the maximum area with the hydraulic resources inventoried.

This is the right approach and it would be difficult to criticise it on purely technical or theoretical grounds, because it goes for the rational utilisation of available resources in the best interests of the

users and optimum returns on the projected developments.

But however good it may be, it fails to take enough account of the human factor, i.e. of the ability of the peasant with little or no experience of irrigation to accept discipline, which in many cases is assimilated to a loss of freedom, and to assimilate and adopt new techniques.

One of the commonest complaints—which some management organisations call design faults and/or bad workmanship—is about the size of the culverts and channels.

These organisations and the peasants themselves (who are good observers, particularly if they are the first to be concerned) maintain that the channels do not hold enough water to meet demand, especially during peak periods, or that the flows delivered by the catchment devices, culverts and other distribution modules are too small — quite apart from the effects and consequences of poor maintenance of installations and plots leading to silted up channels, greater roughness, a decline in the speed at which the water can be carried down weed-laden conduits, illicit tapping,

deterioration of the facilities and so on.

So too optimistic an efficiency rate will lead to planners having what are often expensive installations built over an area which is too large to be irrigated properly. There will not be enough water to serve the whole of this area and the victims will be the peasants at the end of the line. And since developments of this sort are usually done in phases over a period of years, the whole thing will have to be completed before any shortcomings are apparent.

The difference between areas developed and areas cultivated may be considerable, between 10% to 30% and sometimes more.

The (supposed) financial savings made on infrastructure at the design stage will turn out to be pointless. The initial cost per unit area developed and actually irrigated and cultivated will need to carry a weighting proportional to the area which is not (or cannot be) irrigated and therefore capitalised on.

It is easy to see what the repercussions on the working of the plot, the financial situation of the management

organisation and the returns on the investment will be. And they will be even more apparent if the lesser degree of crop intensity than the planners fixed on is added.

## Constraining discipline

In most hydro-agricultural developments devoted to food, particularly rice, one of the aims is to get two crops grown, sometimes over the whole area but usually, bearing in mind water availability, over only part of it.

It is both theoretically and technically possible to grow a second crop, and an off-season one, although since it depends on weather conditions (there may be less water after a period of drought, for example), which are unpredictable, it may be limited or even out of the question.

It should come as no surprise if crop intensity is not up to the (often over-optimistic) figures planned, because not enough consideration is given to some, albeit essential and typical, factors. It is important to pay proper attention to the agricultural calendar and the human factor — quite apart from the problem of water utilisation and the consequences on the area to be irrigated and cultivated.

Peasants who grow irrigated crops have rights and duties. They have the right, in particular, to have the water they need for their crops. But the duties are more of a constraint and they are often seen as obligations and impositions, unfamiliar and unknown before.

Given the effort it already takes to get the peasants to accept the timetabling of work inherent in producing rainfed crops, there is nothing surprising about the (in most cases) enormous difficulty of getting them to stick to a timetable based on obvious technical, financial and economic considerations for irrigated crops.

It would be wrong to say that no peasant is able to follow the advice he is given to ensure optimum crop intensity on his plots, but the double crop system is often a matter of chance for many farmers who, for various reasons, are unable to stick to the recommended agricultural timeta-

ble or comply with the special discipline which irrigation demands.

As the time between finishing work on the first crop and starting work on the second (off-season) crop is short, usually a matter of days rather than weeks, any delay in handling the first crop will push the farmer beyond the period during which a second crop can be planted on the same plot.

Something else which tends to be under-estimated is the farmer's non-agricultural activity outside the normal growing season, his agricultural and other activity (herding, craft and fishing, for example, which are often remunerative and a good source of cash income) outside the plot and the social and cultural activity for which there is more time in the off-season. It is not always easy to get the measure of such activities, but they cannot be ignored, and in some cases they are behind the (even temporary) abandonment of off-season crops.

It is reasonable to conclude that over-optimistic planning automatically leads to exaggerated figures for financial and economic returns, with all the problems that go with them. It should come as no surprise if evaluation reports establish that the returns on developments are far short of what was suggested at the design stage.

They turn out to be much lower than the expected yields (and in many cases, zero) — thus, total production rarely meets expectations and the cost of the work is often higher than estimated.

Specific difficulties of varying degree occur in the implementation of all development projects, whatever they are, and there is no point in thinking that those which crop up in irrigation schemes, particularly big hydro-agricultural developments, are in any way exceptional, as they are found, in one form or another, in every other kind of rural development operation (rainfed crop, livestock and perennial crop etc) where local financing and recurrent costs are a major constraint.

## Constant maintenance

However, some problems, maintenance particularly, are inherent to irrigated agriculture in that the effects on the investment may be such as to compromise the very existence of the plot.

Developing and rationally exploiting a hydro-agricultural development means ensuring proper and (most important) constant maintenance of the irrigation network. Otherwise the scheme may fall so far short of its



**The EDF has financed the creation of 2 300 hectares of ricefields**  
*The costs of management and maintenance calculated when the areas were being created, have rarely been the subject of revision*

quantitative, qualitative and financial targets that a disastrous situation, ranging from gradual decline to total abandonment, may occur.

There is increasing emphasis on rehabilitating irrigated plots in most of the countries which practise this kind of agriculture, State leaders and all funders are encouraging the rehabilitation of existing plots in preference to the creation of new and often expensive ones and some States have a policy of transferring responsibility from the authorities to the local communities concerned — all tangible proof that maintenance is vital if things are to last and that the often high cost attached to it may well be outside the reach of the local budget in the economic situation of the moment.

If an irrigation network is badly maintained and its management neglected and ill-conceived, the water supply to the plot will become irregular and problematic.

This will result in:

- a reduction in the areas irrigated and cultivated to add to those which could not be irrigated and cultivated because of an over-optimistic efficiency rating;
- a direct effect on the size of the yields on the peasant's plot and, as a corollary, on the total output of the whole area;
- a reduction in revenue (dues supposed to be paid by the farmer);
- precarious financial viability of the management structure;
- a very noticeable decline in the returns on the investment.

The irregularity of the water supply—or the lack of it—may ultimately also provoke an understandable reaction on the part of the peasant and perhaps encourage him to stop investing, particularly in the maintenance he is supposed to carry out, with obvious consequences, and in inputs such as fertiliser, seed, equipment, pesticides, etc (when available). This is especially the case if his output is lower, the price he is offered is no incentive and the price of imported inputs is generally high. And it is usually the underprivileged peasants at the end of the network who are the first victims of failing water supplies, while the better-off ones at the beginning are least affected. It would be

tempting to conclude that a badly maintained network penalises poor peasants more than better-off (and therefore better-served) ones and it is easy to see that this sort of situation will provoke trouble and tension among the users.

Planners evaluate the costs of plot exploitation, the management organisation's services and the maintenance work at the design stage of the installation and the users are generally expected to pay dues to cover this management and maintenance.

But these costs are often worked out in the light of data relating to the economic situation of the moment and on the assumption that the area will be developed as planned (in terms of both size and crop-intensity), something which cannot always be relied on, as we have seen.

Since dues can rarely be increased to reflect increases in the cost of energy, maintenance equipment, spare parts or labour, they can rarely be expected to cover all the operating and maintenance costs of the area either and so the management organisation will have chronic annual deficits to cope with, forcing it to look to the State budget.

A common consideration is the standard of the performance and services of the management organisations supposed to run the plots and the qualifications and abilities of the supervisory staff.

There is no denying that all the organisation's staff have to have a degree of training and responsibility if a hydro-agricultural development is to be managed properly.

### **No incentive from the price policy**

It would be all too easy to use the magic formula: "All you have to do is...". But there is still something bothersome which it would perhaps be as well to think about.

In recent decades, and especially since the 1960s and 1970s, bilateral and multilateral funders involved in the big hydro-agricultural developments have accompanied their aid with financial support (spread over 10 or 15 years or even longer) for institutional structures and training programmes.

If things were as bad as is claimed, it would mean that:

- the huge sums invested in training have been a complete waste and ongoing training programmes should be reconsidered in case they have identical results;
- the training provided has not only been inadequate, but the organisations which provided it incompetent too. And as today's evaluators tend to be yesterday's planners and trainers, the staff which is supposed to have been trained has remained ignorant and the peasant who is supposed to have received the messages has been unreceptive and ignored the usefulness of, say, inputs and better growing techniques;

This would be a disastrous conclusion and the whole aid issue would be held up to question. However, there certainly are more deep-rooted reasons and causes to explain this state of affairs.

Over and above the technical, financial and institutional problems, there is all too often a price policy which fails to help the peasant and leaves him without any economic incentive. Once people realise (or are willing to admit) that peasants, whatever the colour of their skin, are good at economics in the broadest meaning of the term and good at saving too, knowing where their interests lie, they will understand and accept the fact that any significant, marketable surplus will be limited if incentive (and therefore remunerative) prices are not offered. There is no point in imagining that the peasant will invest in production or productivity in rainfed or irrigated crops unless he has a financial interest in doing so and is properly paid for his work.

However, if the peasant can be paid properly and guaranteed (and, most important, given) a good incentive (cash) price for his produce, if he has easy access to inputs, if marketing is assured, if management and supervisory staff get fair pay for services involving quality rather than quantity and if some vested interests are done away with, then many a problem will soon be solved and many a difficulty ironed out and overcome. But that's another story...

Or is it? ◊

S.P.

# Improving small farmer-managed plots

by André Marie FOUYA (\*)

*African countries will never feed themselves until they can be free of the whims of the rainfall. Irrigation, which has a star part to play on this continent, was the subject of an international workshop on strategies for the development and improvement of farmer-managed irrigated plots in Rabat (Morocco) on 19 May. The meeting, which focused on what had been done in North and West Africa, was organised jointly by Morocco's Ministry for Agriculture and Agrarian Reform and the International Institute of Irrigation Management to make for better data exchange between the countries of Africa and Asia and thereby improve the performance of irrigation.*

There is no standard pattern of irrigation in Africa. In the West African countries involved in the workshop (Benin, Burkina Faso, Chad, Côte d'Ivoire, Ghana, Mali, Mauritania, Niger, Nigeria, Senegal and Togo), a total of 1 300 000 ha of land, 28% of the irrigable potential, is under irrigation. But Nigeria has 850 000 ha of this, while the figure in Burkina Faso, where the potential is 160 000 ha, is only 14 000 ha so far. Irrigated plots in West Africa tend to be small, varying from 50 ha to 500 ha, except in the case of the Niger Office in Mali, which has 55 000 ha.

(\*) The author is the West African representative for the International Institute of Irrigation Management.

Farmer-managed irrigated plots are a rarity, the usual thing being a sharing of responsibility by peasant organisations and semi-State companies intervening at all stages of agricultural development. Irrigation is also a recent phenomenon, dating only from the post-colonial era in West Africa and the oldest development of the kind is the Niger Office, in Mali, which has been there for 40 years. The countries of North Africa (Algeria, Libya, Morocco and Tunisia) contain more farmer-managed irrigated plots than the rest of Africa combined (Nigeria and Madagascar excepted). Morocco, with an irrigable potential of 1 300 000 ha, has 900 000 ha developed so far, more than half of it under farmer management, and Tunisia, where the poten-

tial is 310 000 ha, has 256 000 ha. The trend in North Africa was to concentrate on having large tracts of land developed by public and semi-public bodies, but governments and farmers alike have also tried to modernise their small and medium-sized hydro-agricultural facilities.

## Problems

But the extension of irrigation has not brought the anticipated increase in agricultural output in either North or West Africa. Food security has not been achieved. Morocco manages to provide 69% of the cereals it needs, 15% of the table oil and 80% of the sugar, while Mauritania manages only 20% of its cereal requirements. What is behind this relative failure of Africa's hydro-agricultural developments? Mainly:

- the prohibitive cost of the developments — US \$ 5000 (almost CFAF 1 500 000) per ha in Morocco, twice that in Senegal and three times that in Mauritania. And the water pumping equipment is also expensive to run and maintain (about 3% of the cost of the investment per ha);
- the fact that the farmers lack training, illiteracy making access to management techniques difficult and preventing them from taking proper responsibility for the developments;
- the price policy for agricultural products, which fails to guarantee the farmer an adequate income;
- the fact that there is no cut-and-dried system of land ownership. Cus-



*Better management would make these small irrigated plots a more profitable proposition*

tomy land rights and State jurisdiction are not always in harmony and so farmers are unsure about their continuing right to work their land and are unwilling to invest;

— the authorities' unwillingness or even refusal to delegate authority to the farmers, which is partly due to the contradictions between the aims of the State and the producers. The State wants immediate maximum output as a substitute for imports and the farmers are more concerned with self sufficiency in food for their families, income supplements and access to land. They look upon irrigation as a sideline which sometimes competes with rainfed agriculture.

### Solutions

The agenda of the Rabat workshop was an opportunity to examine farmer-managed irrigated plots from every angle. Traditional irrigation techniques and methods and the various types of farmer-managed plots in North and East Africa were described, but participants regretted that the papers did not provide more technical detail, as valley floor irrigation, high and low water methods, oasis irrigation, small village plots, gravity feed etc were worth knowing more about.

They were a source of progress if greater peasant involvement was ensured. The way the management of farmer-run irrigated plots was organised was of fundamental importance here, they said, as a better grasp of techniques would make it easier to see what was standing in the way of better irrigation performances and the farmers would have a better idea of the relations between techniques and management. The improvement of this knowledge would be arranged in an operational way, along priority lines and in the light of pre-selected typical cases, and the whole thing should lead to both a synthesis of and a standard reference for such plots. Changes in traditional irrigation were possible and should be progressively negotiated by the supervisors and the producers.

The State can be a catalyst, being involved in political choices, technical assistance and training — which some people saw as being specific to each type of farmer-managed plot. Others

thought they should be pursued until the farmers themselves took over the suggested techniques, while a third group decided that such activities, and training, monitoring and evaluation in particular, should be run on a permanent basis. The State could also bring in stringent legislation to settle the problem of land ownership.



*Are States "dropping" the peasants under cover of a transfer of responsibilities?*

### Exchanging information

Better, farmer-managed irrigation plots in Africa meant cooperation too, workshop participants pointed out. Cooperation between Asia and Africa had indeed been fairly positive, as the Taiwanese had embarked on irrigation experiments in Africa (in the Kou Valley in Burkina Faso) and the Chinese and Koreans were now following suit. These schemes had played an important part in learning about irrigation, in spite of the fact that the models in question had been revised and corrected to adapt them to the African environment. Most participants said they were very careful about the specific features of each environment. Every country had its own history, but exchanges between Asians and Latin Americans (who had a wealth of experience in this field) and Africans were a good idea in the following priority areas:

— the technical concept of farmer-managed irrigated plots and the prac-

tical organisation of water distribution;

— the setting up and running of water users' associations;

— methods of research and development;

— growing techniques;

— methods of transferring management from the authorities to the peasant organisations.

This last item triggered a number of reactions in the meeting hall of the Hassan II Institute of Agronomy and Veterinary Studies in Rabat, where the workshop was run. The farmers might well be willing to help manage the plots, but what was in it for them? Were the various States, with their debt and budget problems, not looking to "drop" the farmers under cover of a "transfer of responsibilities"? Was it not a good idea to stress the link between type of development and type of management? Couldn't management be transferred on an experimental basis?

Information could be exchanged in a variety of ways and, classically, via seminars and workshops, study trips for people in charge of farmer-managed irrigated plots, news sheets and study grants for trainees. Some original proposals were made here. Information networks could be set up across Africa, for example, and a data base could be created (the Institute could take care of this and training in farmer-run plot management techniques). Ouagadougou, a hydropolis, seemed the obvious place to get these exchanges under way and everyone agreed to take part. After this display of unanimity, however, the participants proceeded both to criticise the workshop and themselves. The organisation of these exchanges on farmer-managed plots, they thought, was in danger of being biased if the information only concerned representatives of the public authorities. Could an engineer working for the State organise State withdrawal from plot management by himself? In future, it would be a good idea to go for greater association of peasant and private organisations. And then, the authors of the papers pointed out, most of the reports they had presented during the workshop were national ones... which proved how essential exchange was.

○ M.P.

# Hydro-agricultural development and diversification

by Robert GREGOIRE (\*)

In any discussion of hydro-agricultural development, there are two ideas which always come to the fore — or which at least have long done so. One is that a hydro-agricultural system is an entity in itself and more or less cut off from its environment, from which it requires no more than irrigation water and at a pinch some labour. The other is that, in the hydro-agricultural developments of the past few decades, rice reigns virtually supreme.

Irrigated rice growing has of course been a good way of coping with the food shortage which followed the recent years of drought, whose effects have been made so much worse by the rapid expansion of the population and its domestic animals.

Rice can adapt to a wide variety of what are often poor soils and climates, "provided it has its feet in water" and it looked like the ideal answer to the food shortage. Its yields (3-5 t per ha) greatly exceed those of rainfed grain (1 t per ha) or even irrigated wheat (2 t per ha) or maize; crops which are also far more demanding when it comes to growing methods, climate and soil. And, thanks to the protection of its hard husk, paddy is easier to keep than maize, wheat or cowpeas.

So, to many political decision-makers and financiers, hydro-agricultural facilities mean paddy fields. Looked at

rather superficially, the short-term results suggest they are right, because:

- peasants have rapidly adapted to the crop, obtaining very reasonable yields per ha in the process;
- the only work involved in developing rice fields has usually been shifting soft earth in places where public plant from major road works could easily be used. And the same has been true of the change-over from traditional piping systems to concrete-lined channels, dams and other water catchment devices;
- in Sudano-Sahel countries where water is the key to agricultural output, large numbers of people have been inevitably attracted to water control;
- lastly, rice looms large both in the urban diet and in national trade and this too is an encouragement to grow it.

## Traditional activities recur

In spite of this obvious success, problems and negative effects on the environment have rapidly appeared.

Rice takes a lot of water, particularly if the growers are new to the crop or the paddies are just being established. Some 10 000-12 000 m<sup>3</sup> per ha is needed in the rainy season and 20 000 m<sup>3</sup> in the dry and, if water has to be pumped, as it does on the terraces by the River Niger and the main bed of the Senegal, for example, the cost price is excessive and may be prohibitive in the dry season. But maize only needs 8 000-10 000 m<sup>3</sup> of water per ha at this time.

And if there is no proper drainage to enable the mass of water to run off, it

gradually builds up in the ground and raises the water table. Since the water table often contains salt, the soil becomes sterile — a common occurrence in West Africa, in river deltas, for example.

Water available throughout the year is an encouragement to grow several rice crops. Two or even three are theoretically possible over a 12-month period and farmers are keen to have this number, as development costs are high (ECU 10 000-20 000 per ha) and have to be amortised as quickly and as efficiently as possible.

In practice, however, it soon emerges that the areas actually under crop in the cold part of the off (i.e. dry) season amount to only half of what is used in the rainy season. In the hot part of the dry season the proportion is only a third. There are various reasons for this and the main one, apart from the price of pumped water, is that the available labour force is busy with traditional activities other than rice growing (fishing, seasonal work in the nearby towns, craft, hunting and so on) and it takes a lot of labour to grow rice.

Even in the rainy season, rice has to compete with the more traditional rainfed crops (millet, sorghum, cowpeas etc) in spite of the fact that they yield three to five times less. And decisions as to how labour should be allocated tend to favour traditional rainfed crops rather than irrigated ones.

Habit is no doubt very much to blame here, as is the "wisdom" of the peasant anxious not to put all his eggs in one basket. And the planners have something to do with it too, as they may be mistaken in their assessments and fail to take enough account in their labour calculations of the fact that irrigated agriculture is only one aspect of the family smallholding, which always combines rainfed crops, forestry, grazing, artisanal fishing and so on.

Forests have often been cleared and transhumant herds chased from their traditional dry season pasturelands to make way for hydro-agricultural developments. This has happened, for example, in the Senegal valley, and the first result is greater cattle pressure on the neighbouring woods and pastures with, of course, erosion in its wake.

In fact, there is every opportunity for peaceful coexistence of sedentary farmers and herdsmen and intensive agricul-

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Trees planted as wind-breaks — part of the Podor development scheme in the Senegal valley

Photo R. Gregoire



ture and areas of cropping, forestry and grazing in the valleys where the bulk of the hydro-agricultural developments have been made, particularly since some of the herdsmen's livestock in fact belong to the farmers.

Lastly, in all but very exceptional cases, the rice output per hectare declines slowly but surely from one year to the next, no doubt because a lack of humus alters the structure of the soil in the rice fields.

### Ecological developments

How can the most be made of the obvious advantages of irrigated rice growing, particularly in the Sudano-Sahel area where the crop can be grown intensively thanks to hydro-agricultural techniques making maximum use of the water available? How can it be done without mortgaging the future of the traditional nomadic and sedentary peoples of these great valleys and destroying the naturally fragile environment now prey to ever-more hostile weather conditions and a population which is expanding but deviating little from its old way of life?

Solving these problems—and there do not seem to be many ways of doing so—means looking at them in two ways.

1. Hydro-agricultural developments must be thought out and implemented as an integral part of the development of the ecological environment into which they are to fit — not just the main bed of the river which will be supplying the water, that is to say, but the whole agriculture-livestock-forestry area covered by the farmers and herdsmen who will be using them. This, in particular, will make it easier subsequently to manage the relations between the various people involved—the herdsmen, farmers, foresters or fishermen and even those potential consumers of surplus production, the city-dwellers in the secondary towns nearby and agro-industries (rice plants, tomato canners, dairies, slaughterhouses and so on).

2. The intensive agriculture which hydro-agricultural facilities have made possible is only one way of enhancing part of the production activity of a family or village unit whose activities also comprise and will continue to comprise, extensive farming, rainfed crops, semi-sedentary herding and craft activities. They may even be totally removed



**Cowpeas growing in the shade of eucalyptus trees in Niger**

*People must be encouraged to grow crops which need less water and trees for fruit and timber, alongside their rice*

from the rural world during a temporary move to the cities. Each of these rural activities supports the others, enabling the local peasantry to make a better job of standing up to what are generally difficult conditions of production. Seen from this angle, the intensified part of the farm activity will also make crop diversification a necessity, to fit in better with the work potential, the outlets and the demands of the climate.

In this intensive agriculture, seen as part of a larger whole, rice growing will keep its rightful place, that is to say, in the rainy season, when the yield is 3-5 t of paddy per hectare and only a minimum amount of water is required, particularly if it has to be pumped. In the off season, however, people should be encouraged to grow crops which are less water- and labour-intensive (maize, wheat and grasses), in the light of the labour force available, alongside the rice — which can remain in certain very good conditions. This should mean that the cattle can stay on the plots outside the period during which the by-products of the rice crop are consumed, thereby providing the soil with the organic matter it so greatly needs and the farm with the draft animals that are often wanting, even if this means doing away with one or two dykes and canals.

Vegetables are also a way of diversifying output during the cold part of the dry season.

But the size of these off season-crops, the products of which are often difficult to keep, must always be tailored to what the local market can consume in the way of fresh and processed products (canned tomatoes, for example).

Alongside land which has been developed into proper paddy fields, large tracts which are more difficult to irrigate in spite of being close to a source

of water are sometimes abandoned because they cannot actually be used for rice, but they should be planted with trees to provide fruit or wood for poles, firewood, building and so on.

Trees not only provide the farmer with wood to use for various purposes, or even to sell. They also act as wind-breaks, particularly on the edge of canals and channels, and may provide a micro-climate that is conducive to crops or which prevents erosion by wind and water when sand dunes are a threat to low-lying developments.

Lastly, wide corridors should be left (as things stand) between the developed areas and their immediate hinterland so nomadic herdsmen can get to the water and natural pastures.

\* \* \*

This way of looking at hydro-agricultural developments—i.e. of devising them and carrying them out in the light of the local ecological set-up and the people who are going to use them, and not just considering the demands of the irrigation works themselves—may slow things up, initially at least, because of all the extra factors to take into account, although, for the reasons mentioned above, the amount of developed land brought under crop is far from keeping pace with the amount actually available.

However, they will no doubt mean that intensified agriculture through water control becomes firmly rooted in the peasant economies of the great valleys of the Sudano-Sahel part of Africa. They are the only thing which can cater for the profound and forcibly slow changes which irrigated methods bring for the sedentary farmer and the more or less nomadic herdsman and they cause the least possible damage to the all-too-fragile balance of the local ecology. ◊

R.G.

# Irrigating with underground water – A Senegalese experiment

by Daniel BOUBEE (\*)

Much of Senegal is in a precarious situation in a Sudan-Sahel zone prey to the whims of the climate, unserved by the main trade and communications routes and a long way from the rivers. There are plenty of underground water resources, but by and large, proper use is not made of them. Many boreholes have been sunk—more than 700 to date—and those which have actually been fitted out are geared to the priority needs of the people and their animals, but a more rational approach is to create small irrigated village plots around them.

Three irrigated production campaigns were run during a first test operation, involving a dozen villages, with technical assistance from GERSAR. The (albeit heterogeneous) results were good enough to envisage going beyond the basic economic evaluation and developing projects of this type to generate new money income and make a significant contribution to the population's food supply.

Such installations are focuses for integral development and they should, ultimately, revitalise the Sahel environment by generating a new, dynamic movement among the people (water point maintenance, reforestation, improved rainfed crops, optimisation of herding, organisation of products and supply and marketing networks, provision of secondary and tertiary sector services in rural community centres and so on), thereby providing a partial response to the anti-desertification drive. Village organisation and the optimum management of these water resources are the two things on which the success of this programme of vital regeneration of the physical and human environment depends.

## Creation of the PPIVF (project to create small village plots irrigated by boreholes)

The Senegalese authorities wanted to construct a technically and economically viable development model which could be reproduced many times over in the Sahel. In 1982, a first expert mission confirmed that reasonable prospects of capitalising on the water resources could well take practical shape in an original project. In 1983, a feasibility study run by GERSAR and the Senegalese authorities (Directorate for Hydro-Agricultural Development and Infrastructure at the Ministry of Hydraulic Resources) convinced the Commission of the European Communities to mobilise special funds for this, as part of its world hunger policy, which it did in 1984. The Hydro-Agricultural Directorate, which was in charge of running the project, called the PPIVF, came up with a practical programme for full-scale testing of the institutional, technical, social and economic conditions of implementation and a dozen small irrigated village plots were set up near boreholes with the ECU 532 700 (approximately CFAF 182 million) financing provided.

## Project organisation and management

In conjunction with an interministerial coordination committee, the director of the project, the Minister of Hydraulic Resources, delegated his powers to an official in the Ministry, who became project leader. So no special structure was needed and all decisions on the first test operation could be taken by a management unit comprising three representatives (from the Hydro-agricultural Directorate, the EEC Delegation and GERSAR).

A series of jobs had to be done to ensure that this experimental project worked properly. They involved:

- checking on the water available and the state of existing facilities;
- surveying motivation in the villages;
- studying the execution of additional facilities;
- checking that the work was done properly and the equipment supplied;
- preparing the first production campaign (assistance for the producers' organisation, ordering inputs, small items of equipment and so on);



R. PARIS

(\*) Project leader with GERSAR (the Regional development companies' study and achievements group).

*There must be enough water available, so there must be reserves and proper maintenance structures*

- ensuring agronomical and agro-economic monitoring of the off-season production campaign, in conjunction with local supervisory staff;
- checking that specific project equipment was working properly, in conjunction with the Directorate of Exploitation and Maintenance at the Ministry of Hydraulic Resources;
- producing a critical evaluation of the first campaign and proposing adaptations for continuation of the project;
- Preparing a winter campaign and a second off-season campaign;
- producing a final report, in collaboration with the CIRAD (with financing from the CCCE);
- proposing three extension programmes for this development model (covering a total of about 60 villages selected after investigation and enquiry) — one of them, a predominantly agricultural operation, in the interior of the Ferlo region (CCCE financing), the second, more domestic and pastoral in emphasis, on the edge of the Diéri in the department of Podor (EEC financing) and the third, run under the direction of the local development company (SODEVA), in the Louga region (ADB financing). The only programme on which a practical start has been made so far is the last one.

### The experimental project — a description

The main region covered here, right in the interior of the country in the Ferlo region and well away from the main trade routes and decision-making centres, is typical of the forestry-herding sectors in so many of the countries in the Sudan-Sahel strip of Africa.

The aquifer which can be used in this zone is the upper Senonian table, which receives a small amount of water from two lateral, but very strong and wide affluents. It is accessible via 150 m boreholes, but thanks to some "artesianism", a static level of 10-70 m (depending on the geographical situation of the site) can be obtained below the level of the natural terrain. Typical flows of 10 to 30 or even 50 m<sup>3</sup> per hour per metre depth are common. Additionally, the water in the project zone is good (with less than 1 g per litre of dry



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*Women are crucial to water point management and the growing of crops*

residue) and it has not shown any signs of deterioration over the past 30 years.

The other sector is an example of the less favoured agricultural area of the groundnut basin. Water here comes from more superficial tables in tertiary limestone, normally replenished from ground water. Characteristic flows here are large (100-200 m<sup>3</sup> per hour per metre) and the quality of the water is very good, but the current heavy exploitation of the table precludes large-scale use for non-priority purposes.

### The original situation conditions the technical options

The authorities decided to restrict the size of the infrastructure equipment and thus increase the number of villages able to benefit from the scheme by confining the pilot operation to boreholes already fitted with water drawing equipment — which is very variable in type and performance. There are windmills bringing up 1 m<sup>3</sup> per hour for a few hours, rustic-handled pumps giving 5-8 m<sup>3</sup> per hour and a whole range of mechanical pumps with large outputs (dozens of m<sup>3</sup> per hour) which can be used on a continual basis, provided there is a regular supply of fuel. But in spite of this diversity, the volume of water available from the test operation boreholes every day is a relatively constant 50-100 m<sup>3</sup>.

At this point, it may be useful to mention how the boreholes currently being exploited in rural Senegal are managed and to introduce the borehole management committees. Since

1981, these committees have been formed to look after each equipped borehole, providing a link between the villagers and the outside organisations and checking on the various ways water, which is considered as common property, is used. Particular functions are to lay down the hours of pumping, collect subscriptions to cover everyday running expenses (especially fuel) and decide on pricing in the village. Each committee normally comprises a representative of the Prefect, the elected chairman of the rural community, the village chief, representatives of the various groups of users and a representative of the Ministry of Hydraulic Resources, which is responsible for maintenance.

This latter responsibility is devolved to the Department of Exploitation and Maintenance (DEM), which normally takes care of the training and sometimes the remuneration of the "borehole official" who is sent to each of the supervised boreholes (of which there are more than 200). These officials can start up and perform everyday maintenance on the surface installations, diagnose more serious breakdowns and thereby speed up repairs when regional units of the DEM have to intervene. The efficiency of this structure began declining in 1984 due to lack of funds. Repairs not involving bringing the pump to the surface can often be carried out in 48 hours, but any that do remain problematic.

So the extra infrastructure amounted to no more than any missing or defective village hydraulic facilities (security tank and regulator for



*Peasants are highly adaptable to new crops — vegetables for example*

the land, drinking fountains and water troughs). The agricultural project proper was in theory confined to connecting up this infrastructure with conduits to the future irrigated plots — themselves fitted with various water distribution devices, chosen, in particular, in the light of the static load available in the pipemain.

### Basic aims only partly achieved

All the producers isolated in the interior of the country decided to use a growing method copied from the market gardens of the “Niayes” in the Cape Verde area near Dakar — an understandable choice from several alternatives which received no encouragement from the project director because of the heavy risk involved. But the peasants see it as the way of earning a considerable amount of money after a series of disastrous winters during which they were unable even to subsist alone.

The first aim of this project was to help rural populations in a survival situation towards self sufficiency and it therefore planned to bring in a wide range of crops — vegetables to cover the costs of the campaign and, above all, traditional food crops well-known to the producers. Schemes to plant trees (orchards, windbreaks and nur-

series) and ensure reliable seed production were also programmed.

The villagers were left to make their own choices here, so they would be responsible in the true meaning of the word.

Technical monitoring, which was originally felt to be important but in fact turned out to be fundamental, was set up at various levels, three months before the first sowing.

The overall responsibility was in the hands of an agricultural engineer, who represented the project director in the field for six months during the off-season campaign, three weeks in the winter and as preparation for the dry off-season and three months at the end of that. He was seconded by the civil servants in charge of technical assistance for the farmers and herdsmen in each district.

Help was sought from the Senegalese Institute of Agronomical Research (ISRA) and the Institute of Food Technology (ITA), not just with producing the basic data (on strain selection and irrigation systems), but with the technical monitoring too. However, other than for an efficient training scheme run with the supervisors and peasants (CDH/ISRA), the project directors were unable to make full use of these skills.

Going beyond the first results (covered in an important GERSAR-CIRAD-CCCE study, 1987), a number of basic facts can be highlighted:

— The peasants display genuine adaptability to techniques that are new to them (running irrigation systems, market gardening etc) and to carrying out all the attendant input supply and marketing operations.

— Intensification is gradual. Only 30-40% of the area equipped for irrigation was actually used during the first campaigns, in spite of the fact that the average area of each individual farmer was small (about 100 m<sup>2</sup>).

— Although the average results of the first three campaigns were small (13 t per ha per campaign for crops taking up most of the plot and offering the best yields — onions, tomatoes and cabbage), some un hoped for yields (of 60 t or even 80 t, double the target figures) show the considerable potential of the Sudan-Sahel environment.

— The amount consumed by the farmer, who basically wants vegetables, remains small (less than 10%). The considerable surpluses are easy to sell on the local market and help raise the food ration of the population of the Sahel, as a substitute for supplies from the coast.

— The use of a permanent resource from the boreholes means that crops need not be grown at the same time as in the more traditional centres and that the markets can be supplied in interim periods when selling prices are high and the most capital can be made from the products grown under irrigation.

— Cases of migrant workers returning home have been noted, as the daily rate of pay becomes highly motivating over two labour-intensive off-season crop campaigns — CFAF 2000-3000 for the roughly 500 days of work per hectare thus created in an area where remunerative work is in short supply. However, the work is currently spread too thin (30-120 workers per ha), so the money redistributed, over and above what the individual consumes, is often too small to be a permanent income that provides any real motivation.

— The villagers will probably move towards individual exploitation of larger plots, as has already happened in two of the areas under irrigation. This will mean that fairly large irrigated sections (800-1000 m<sup>2</sup> per farmer) will be created on existing farms and integrated into the traditional system of rainfed crops (an average of 80 000 m<sup>2</sup> per family).

— External support has to be phased out. Sudden withdrawal of technical assistance, especially before the maintenance structures have been run in, has triggered serious upsets in the local systems, which have sometimes

been abandoned altogether, because of lack of water.

### Obvious advantages

The anticipated effect of this development model at local level is enormous. Maintenance of a remunerative activity can induce young peasants to stay put and get them involved in ensuring the self sufficiency of the people of the Sahel. And it is a practical contribution to anti-desertification too.

A look at the first villages involved in the project shows what the by-products are:

- jobs, motivation and the settling of part of the population (thanks to direct and indirect employment);
- supplies for local markets and a better food ration for the villagers;
- a contribution to better techniques of growing, harvesting, storage and processing of produce;
- encouragement to villages to get organised to take over responsibility for their own survival and development via encouragement for local development initiatives (management of water points, nurseries, village forests, winter crop seed production, induced effects of better growing techniques, introduction of draft animals, livestock fattening, feedlots, batteries etc).

On average, the project provides equipment for 2 ha of fully irrigated intensive (off-season) crops near boreholes not already used to capacity for

priority requirements throughout the Sahel area of Senegal.

Village hydraulic schemes produce dozens of new boreholes every year. Although care is called for in using what are insufficiently known underground water resources, it is reasonable to count on 1000-1500 ha of intensive, off-season crops and to secure winter cereal production over an area of almost 5000 ha.

Although the target output of this project represents, overall, only a marginal percentage (about 10%) of the supplies the country needs, it is of fundamental importance as far as regional development is concerned.

Projects of this kind should fit into regions of forestry and herding and of traditional agriculture. Denser water points and coherent prices will go hand in hand with optimum herd size and management, complementing rather than competing with the development of cereal and vegetable crops.

Lastly, these small irrigated plots, which are on a human scale and managed directly by the villagers concerned, constitute not alternatives to basic rainfed crop improvement programmes or the big river valley development schemes, but one of the ways the States are using to take their own development in hand.

These conclusions corroborate those of the International Drinking Water and Drainage Decade (1981-90), the first report of which was drawn up in December 1989. The emphasis was on the need to ensure that:

- the recipient populations take over psychological and financial responsibility for the water points — which means that remunerative activities must exist;
- minimum standardisation of the water drawing equipment is arranged and operational maintenance structures reflecting the various degrees of difficulty of the (paid) interventions are established;
- development programmes launched by the various international institutions are coordinated;
- health requirements (clean water, above all, but also better nutritional standards and living conditions in the broadest meaning of the term) are taken into consideration in the different components of the project. ○

D.B.



*The first results exceed all expectations and show the people's strong potential when it comes to taking responsibility for their own future*

## Irrigation schemes: the EDF experiences

*In 1983, when the Community decided to evaluate its cooperation in the irrigation sub-sector under the first four European Development Funds, it had already financed some 113 irrigation projects in 24 countries, all but three located in Africa for a total amount of ECU 272 million.*

*The International Institute for Land Reclamation (ILRI), carried out the evaluation, reviewing for this purpose a sample of 11 projects in 7 African ACP countries. The summary report written by ILRI at the end of their study provided the foundation for the drafting by the ACP and EEC experts, of the basic principles applicable to future irrigation schemes, at their meeting in Antananarivo, Madagascar in May 1986.*

*In the meantime the EEC has taken decisions to finance numerous other projects, in particular in the Sahel. It is, in this context, contributing ECU 97 million to the implementation of the "post dam" programme in Senegal, ECU 65 million to the rehabilitation of irrigation infrastructures in Mali, ECU 25 million to the implementation of an irrigation scheme in Sudan and ECU 12.8 million to a programme of small-scale irrigation schemes in Madagascar.*

*The Courier publishes below the conclusions of the ILRI report which remain valid today. A summary of the report was previously published in issue no. 106 of The Courier.*

Irrigation development is more difficult and prone to problems in practice than it is generally believed to be. It is a particular form of agricultural intensification, which raises not only the technical problems of irrigation itself, but also those of a more demanding farming system.

Depending on the resource basis, irrigation may or may not be counted among the priority areas. In Sahelian countries irrigation is clearly of strategic importance and has been firmly supported by the political leadership.

Yet, as also happens with many other projects, the results of most irrigation projects fall far below pre-project expectations. In this respect, there seems to be no difference between projects sponsored by the EEC or by other donors. Clearly, the conventional criteria for project acceptance—availability of suitable land and water, and over-optimistic, unrealistic costs (notably low labour costs) and benefits—are not a sufficiently sound basis for feasibility judgements.

However, given the strategic importance of irrigation in many cases, economic considerations have never been found to be the only motivating factor for policy decision makers.

The role and status of certain rural population groups is always the result of long and complicated historical processes. In recent years, the attention of policy makers has been drawn especially to the position and the importance women have in rural societies, and to their specific role as heads of farm households, key members of the family labour force, beneficiaries and users of income, educators and recipients of education, decision makers and members of society affected by the decisions of others. There is a mounting realisation that their position has generally not been recognised as what, in fact, it is or should be. Systematic but as yet insufficient efforts are being undertaken today to change this situation for the better.

If irrigation, or its intensification, adds a new activity to the existing farming system, it competes for the scarce resources of the farming family. Planners often overestimate the size of irrigated plot that a farmer can cope with. Likewise, they tend to overestimate his ability to grow an irrigated dry-season crop, not realising that he and his family may have other activities that they are not willing to give up.

Therefore, national economic objectives of cash cropping pursued in



Adjusting irrigation sprinklers at Mpongwe in Zambia

*In sub-Saharan Africa, it would appear that the larger the projects are, and the higher the level of their technology, the poorer is their performance*

a project may not coincide with the needs and interests of the farmers. A cropping pattern imposed on them against their wishes will not work and will jeopardise project viability.

Irrigation development necessarily brings about a certain loss of independence for the individual farmer. On the one hand, he may have to grow a compulsory project crop and may have to conform to institutional authorities in using their facilities for credit, supplies, marketing, the payment of water charges, etc. On the other hand, he has to share the irrigation facilities with his fellow project farmers, respecting a jointly agreed cropping calendar, a fair water distribution, scheduled maintenance works, etc. These new dependencies can create severe adaptation problems for the farmer, and even though such problems can seriously hamper project performance, they are often ignored in project planning and implementation.

In many government-run projects, farmers have a tenant status only, without much certainty of their right to hold land, and under a tenure arrangement that closely resembles that of "share-cropping". Such conditions do not induce farmers to put any personal or family efforts into improving the land or maintaining the technical infrastructure, or to display much interest in obtaining maximum crop yields.

In irrigation projects in sub-Saharan Africa, it would appear that the larger the projects are, and the higher the level of their technology, the poorer is their performance.

In the Caribbean/Pacific context, conditions are different: higher labour costs and scarcity of land may impose more capital-intensive or technically more complicated solutions.

Although the investment costs for a pumped water supply are lower than those of the headworks for a gravity water supply, the operation and maintenance of pumps is more expensive and is heavily dependent on regular supplies of fuel and spare parts.

A similar dilemma arises in the choice of irrigation methods. Basin and furrow systems are cheaper and simpler to operate and maintain than the more sophisticated trickle and sprinkler systems, which are risky



Photo CCE

#### EDF-financed rice project in Mali

*Irrigation development necessarily brings about a certain loss of independence for the individual farmer*

because of possible breakdowns and lack of spare parts.

The general state of irrigation development would seem to suggest that recipient countries and donor agencies alike consider the physical construction of works a more important indicator of rural development than the actual utilisation of these works by the farmers.

In areas where irrigation had not hitherto been practised, it is often not adequately realised that irrigation is a radical innovation that requires special laws and regulations, and demands far-reaching adaptations, not only on the part of the farmers, but also on the part of rural institutions and services.

The paramount importance of support services that must accompany any effort to increase production through irrigation, has all too often been overlooked.

Yet, well working support services have sometimes been formed to stimulate irrigated production even without any further government action.

Errors in planning and implementing irrigation projects appear to be repeated again and again. These concern: *inter alia* the role of the farmers in the different stages of the project;

the level of technology; the design of irrigation infrastructure; plot size and cropping pattern; plot allocation; land and plot use rights, and scheme and water management issues.

Staff at the headquarters of donor agencies and government departments responsible for projects are usually poorly informed of what is going on "in the field". An undesirable turn of events in a project can thus continue unchecked until it is too late to stem the tide. The valuable management instruments of monitoring and evaluation are not used to full advantage.

Evaluations have been carried out mostly by project-independent expatriates. Factors requiring intimate operational knowledge or familiarity with local circumstances have therefore often been overlooked.

#### Operational aspects

Organisations sometimes seem to acquire a life of their own, independent from their functions. Irrigation Organisations (I.Os), for instance, have high recurrent costs because on the one hand:

- they suffer from bureaucratic growth and become too large;
- they tend to centralise responsibilities;

- they are made responsible for public tasks not directly related to agricultural production (social infrastructure);
- they become involved in services “upstream” and “downstream” of agricultural production (buying, processing and selling of produce; input supplies; credit);
- they provide agricultural extension.

On the other hand, they do not charge the farmers for the real costs of the production-related services provided to them. Furthermore, government contributions, previously agreed upon are only slowly, reluctantly and partly disbursed. This forces the IO either to reduce its costs by postponing project maintenance and reducing the services it provides, or to engage in supposedly remunerative side-activities and to undertake new construction works.

Frequently observed shortcomings of irrigation organisations (IO's)—most of which are government-initiated and government-controlled irrigation development agencies—are:

- they have difficulty in involving and motivating the local farmers;
- their primary interest is in short-term construction objectives, at the expense of the irrigated crop production proper;
- they tend to expand into activities other than agricultural production;
- they are reluctant to give up their established positions and to transfer management responsibilities to water users' associations (WUAs), even though it must be admitted that the latter are not overenthusiastic to take up these functions at the outset.

In areas where irrigation is traditional, the IO can possibly restrict its activities to introducing some technical improvements. In areas where irrigation is not traditional, however, its introduction will require long-term assistance to train farmers to form WUAs and to accept their share of the project's operation and maintenance (O+M). The only successful WUAs that have been formed are those in the small-scale, village projects. In the larger projects, either no efforts have been made to form WUAs, or they have only been partially successful, resulting in high O+M costs.

Responsibility within the IOs tends to be strongly centralised and based in a city, thereby attracting the most highly-qualified technical and management officers away from where actual irrigation development is supposed to be taking place: in projects in rural areas. A duty assignment to an irrigation project is often even regarded as a posting in exile, which obviously does not enhance job dedication or project performance.

In most of the evaluated projects, the financial results for the farmers were found to be fairly satisfactory. It appears that this is only possible, however, with substantial subsidies on costs for O+M and other services provided to the farmers (tractor services, fertilisers, etc.).

In regions where the inhabitants have become used to the gift-like character of irrigation development—with free irrigation facilities, free water, and almost free food—it is difficult to introduce a system of water charges to cover O+M costs.

Implementation costs of the evaluated projects varied between ECU 3 200 and ECU 20 000/ha (1983 prices), with one exception of ECU 400/ha, which concerned only the provision of small water-diversion structures. Given the prevailing yield levels and cropping intensities, it is unrealistic to expect that the farmers can fully repay the implementation costs.

It has been found that there is still an insufficient desire by donors, largely unresisted by recipients, to use each project systematically with the intention of building up national construction and management capacities.

In general, the irrigation and agricultural extension services are under-qualified, understaffed, inadequately mobile through lack of transport, and insufficiently committed to the success of irrigation projects.

Staff working in agriculture are less well considered than those employed in other government services; extension staff less than those holding administrative functions. Even though providers of irrigation extension services are generally better off than those in other areas of agricultural work, they are less well paid, by and large, than employees of comparable professional capacity in the private sector.

Experience shows that there are certain areas where divergence between forecasts and reality is particularly marked.

Thus, in spite of modern measuring and distribution structures, common problems, especially in the larger projects, are unequal water distribution, poor maintenance, and low irrigation efficiencies. There seems to be a widespread misunderstanding that operational problems in irrigation can be solved by simply raising the level of technology.

Moreover, a common problem in the evaluated projects is that the cropping calendar cannot be respected. There are various reasons for this, the most important ones being:

- no suitable short-growth-period variety available;
- high labour-peaks due to the harvest of one crop overlapping the land preparation for the next crop;
- competition from rain-fed agriculture for available labour;
- problems with specific weeds.

Overoptimistic forecasts are also common in the field of mechanisation of tillage and harvesting. In small-holder irrigation projects in sub-Saharan Africa, tractors are rarely superior to draught animals, either in reliability or in performance.

Prejudice and confusion about adapted and advanced technology is still widespread.

The economic internal rate of return (EIRR), which was recalculated for the projects evaluated, is low, often even negative. This is in sharp contrast to the original estimated EIRRs of 10% or more in the project proposals. The difference is mainly due to unrealistic estimates, during the appraisal stage, of:

- total implementation costs and those for O+M;
- the time required for full implementation;
- cropping intensity and production levels;
- opportunity cost of labour.

The indicative value of the EIRR is, moreover, strictly limited as it overemphasises short-run benefits and neglects long-term impact. Development, however, will be served better by long-term impact than short-term benefits. ○



# From plantation to farmer management – the lessons of the Haalpulaar village schemes

by Dr. Geert DIEMER (\*)

People in the middle valley of the Senegal River have coped with the drought that hit the Sahel in the 1970s by installing diesel pumps on rafts in the river. Each pumpset feeds a canal network that waters 20 hectares divided into 50 to 100 plots. The schemes are located near the river, on land that before the advent of the schemes, was of little agricultural use.

State and donor organisations helped the farmers spread the schemes by providing pumpsets and technicians. At the onset of the drought, only one or two such schemes existed; today over 700 of them can be found. Their area of over 14 000 hectares is managed by some 700 farmer groups. Farmers cleared the sites and dug most of the canals. One farmer summed up the achievements of the schemes as follows: "Before we were hungry, now we are not anymore".

The relative success of the schemes may be compared with the relative failure of most state-linked irrigation investments in sub-Saharan Africa. What does this success look like, how did it come about and what does it teach irrigation planners?

The schemes are successful first of all because farmers think so. After 10 to 15 years of experience, farmers still rehabilitate and enlarge their schemes and build new ones. They file new demands for technical assistance with Senegal's and Mauritania's irrigation agencies and with the non-governmental organisations that operate in the valley.

The schemes are also successful because their construction is inexpensive compared to plantation-like, state-linked schemes. The construction of a village scheme requires a public investment of approximately 1 million CFAF per hectare whereas

3 to 5 million CFAF are needed for the large schemes.

A third reason concerns the yields. On the small schemes harvests average over four tons per hectare whereas on most large schemes, like the ones found in the neighbouring delta, yields do not exceed three tons.

A fourth reason concerns the running costs to the state. Since the schemes are owned and managed by farmer groups, they are operated and maintained by farmers. Only few technicians are needed. On normal schemes, bureaucracies of several tens of people are employed: a general manager, an assistant manager, water guards, supervisors, tractor drivers, administrative personnel, bookkeepers, secretaries, car drivers, watchmen and the like. Some of them have several years of training at university level. Together they command a sizeable payroll.

Last but not least, the schemes are successful because they cause little environmental damage.

## The organisation of management

How are the schemes operated? Here I limit myself to some remarks. The collective management of the irrigation schemes supposes that the farmers work out their own solution to the organisation of leadership and authority. The way in which authority is exercised in the irrigation associations and in the other village associations is modelled on the village power structure.

In villages of Haalpulaar farmers, the largest of four ethnic groups that live in the valley, usually only one free-born clan has the privilege of presenting candidates for the position of village chief, but two to six free-born clans have the right to nominate a candidate from among the eligible clan. The length of a village chief's stay in office depends on the extent to which leaders of the electing clans feel that they are given a sufficient say in village affairs.

On the schemes, a similar arrangement prevails. The board members of



*The schemes are constructed and managed by farmers' associations*

(\*) Anthropologist with the Department of Irrigation and Soil and Water Conservation of the Agricultural University of Wageningen and an independent consultant.

the association, of whom only the president and the secretary/treasurer are important, are chosen by the members from among their midst. However, only persons who belong to either the eligible lineage or one of the appointing lineages are chosen for the office of president. In other words, only a circumscribed category of participants is eligible. The person chosen will stay in office only for the length of time that the other eligible participants feel that they are sufficiently involved in the decisions that affect the scheme. If they feel discarded, they may mobilise the other participants to dethrone him.

The schemes are constructed and managed by associations that are founded by farmers. The initiative may be taken by the farmers but also by the irrigation agency. In both cases, farmers usually have little difficulty in setting up the associations. In their society, they are members of numerous associations, e.g. wrestling associations, associations for the upkeep of the village, for the construction of a mosque and for the operation of a village pharmacy. Membership of these associations may imply monetary contributions, participation in collective labour, or both. When regular contributions in cash are involved, these associations appoint as a bookkeeper a member who, in a Koranic school, has learned to read and write the Arabic script. These associations serve as a model to the irrigation associations.

In their turn, the associations are modelled on the pattern of the age-groups. These are formed by their parents when the children are between 10 and 14 years of age. In villages of Haalpulaar farmers, all boys and girls in the age bracket have to join the group. They elect a chief (*mawdo*) and several officials. The chief and the officials are usually members of the appointing or nominating lineages. Starting out as play groups, the children have to contribute small sums of money that they spend collectively on treats. When its members reach the age of 18 years, male age groups turn into debating clubs. The age groups have strict rules for the ways in which the collective funds should be handled. If someone breaks a rule, serious and long-winded discussions may fol-

low and a sanction may be administered.

In the age groups, young villagers learn how to wield and respond to authority. In the words of one age group chief: "The age groups are one of our schools. Here we learn how to live together". Through the age groups, all villagers learn how to participate in collective decision-making and to respect such decisions. In addition, children of leading lineages learn to lead their peers and make them respect decisions while children of other lineages learn to respond to the authority of the former.

The importance of the age groups to the effective operation and management of the village schemes needs hardly to be underlined. Managing an irrigation scheme is a collective affair that requires financial contributions and collective labour for the operation of the pumpset and the upkeep of the canals and dikes.

The management of the canal networks is a case, then, of African farmers applying their organisational patterns to a technology that they have imported from the West. Consequently, although the pumps and canals constitute a new technology, many irrigation presidents are not young, "modern" men but old, "traditional" men; respected leaders of respected lineages.

### **The exploitation of the plots**

Why do the farmers construct and manage the schemes? The answer is: because they need the rice. In the northernmost reaches of the Senegal river valley, rainfall rarely exceeds 200 mm and is insufficient for the rainfed cultivation of millet. Even where, more to the south, average rainfall amounts to 400 mm or more, subsistence on rainfed millet is hazardous. Yet, population densities in and near the valley are 30 times those of the neighbouring savanna. This is possible because of the river. Until the drought, the river inundated an average of 100 000 hectares of clay depressions during the rainy season (July-October). When the rains stopped and the waters started to recede, farmers would plant pregerminated sorghum seeds that would grow on the residual moisture in the soil. The

dense population survived the aridity of the climate because the inhabitants cultivated these clay depressions.

Already in 1957, however, approximately one third of the inhabitants did not have access to these fields. It is likely that many of them left the valley forever. Other households stayed there. They sent off their men only, to Dakar, to the peanut basin and to Nouakchott. The husbands and sons had to earn money to pay the head tax and buy new commodities like batteries, oil lamps, pens and peanut oil, and to earn the funds needed to buy the grains that their households could no longer grow.

As France went through a period of economic expansion, many men found jobs there. Their new employment in factories and service organisations made it impossible, however, to return each year. They therefore sent their money to their fathers, mothers, wives or brothers through the mail.

With the onset of the drought, even more inhabitants were excluded, as the flooded area declined to 30 000 hectares, and some years even to 10 000 hectares. Many households reacted by copying the strategy of seasonal migration of their neighbours, or by encouraging their men to stay abroad longer to make more money. As unemployment started to rise in France, many men turned instead to Côte d'Ivoire. There also, they would stay several years at a stretch, remitting their money through friends and relations who also worked in Côte d'Ivoire but who returned for three month visits. When the Côte d'Ivoire no longer offered opportunities to earn cash, the men started to travel to oil-rich Gabon, another French-speaking country using the CFAF.

These patterns of seasonal migration to Dakar, the peanut basin and Nouakchott and migration extending over several years to France, Côte d'Ivoire and Gabon saved the inhabitants from starvation.

Rather surprisingly, the migrations provided the inhabitants with new possibilities to grow their own food. At several spots along the river, farmers had experimented with irrigation. Out of these independent and uncon-

nected experiments, a new type of irrigation scheme was developed. A diesel pumpset installed on a raft floating in the river, or placed on a cart near the river, pumped water to a small canal network dug on the embankment. In most cases, these sites were wooded, and little used. The canals irrigated fields that were initially some 10 to 20 ares and that were used for rice cultivation. They could be fed with water both when the water was high, in the rainy season, and when it was low, in the dry season, because the pumpset was moveable.

Villagers obtained an irrigated plot because they had helped build the scheme. They quickly reaped up to 50% of their grain harvest from the schemes. Later, when the plots were extended to an average of 30 ares, many households commonly harvested over 80% of their total harvest from the schemes. They ate almost all of this themselves. They did not have to sell more because they paid for the costs of pumping the water with the money that they received from the migrants.

By acting in this way, the people who stayed in the village multiplied the purchasing power of the money remitted by the migrants. By cultivating irrigated rice, 1 000 CFAF would give them between 50 and 100 kg of paddy, whereas the same sum would buy them the equivalent of only 15 kg of paddy in the local shop. Rather rapidly, many households replaced their recession agriculture, that for centuries had given security to their forefathers but to which they no longer had access, with the new irrigated agriculture financed by the migrants.

### Lessons

The rapid expansion of the irrigation schemes along the Senegal river strikes a contrast with the stagnation that haunts most state-linked irrigation development south of the Sahara. For that reason, the schemes have been studied by a 5-year research project composed of anthropologists and irrigation engineers. Their common aim was to discover what the village schemes meant for the way in which ordinarily, irrigation schemes are planned and designed.



*Harvests on the small schemes average more than four tons per hectare whereas on the larger schemes of the delta, they do not exceed three tons*

Their main finding is that most schemes fail because they are planned and designed as if they were farms divided into so many 1-acre plots. Irrigation engineers, along with economists, tend to view irrigation schemes as plantation-like enterprises. The schemes are equipped with canal networks and with regulatory, division and measurement structures that demand single-handed, central management. The networks are designed to deliver water to crops chosen, not by the farmers but by the planners, often to cater to the tastes of urban dwellers. The sites are chosen for their pedological suitability for the crop and their hydrographical and topographical suitability for irrigation. Current land use by local farmers and pastoralists is usually neglected, as are property relationships and relationships between political communities. The canals are laid out as if these relationships did not exist and were irrelevant for the management of the networks and the exploitation of the plots.

It is usually felt that only the state has a right to the land and to the waters mobilised for the scheme. Consequently, the water is allocated and distributed, not to individual right-holders but to plots, and to blocks of plots instead of to groups of farmers. It is the farmers' obligation to obey the general manager of the scheme and devote all efforts to the cultiva-

tion of the irrigated plots. The farmers are to open and close the fields at moments determined by the general manager, who calculates the rotation of the water on the basis of a (simplified) model of (an optimising of) the water-plant-soil relationships. In the design of the plot (size, location, types of soil, shape) no care is taken to match the plot with the current farming system and the local organisation of production and consumption (resources and obligations of male and female farmers, of older and younger farmers and so on).

However, it turned out that one of the reasons why the village schemes multiply so quickly is the fact that the farmers instal the canal networks on land that belong to (one of the clans of) their village. The networks did not require major changes in the local land tenure and local political relationships. Rather, the engineers designed the networks starting from the existing pattern of land use and land rights. As a result, most of the irrigation associations consist of people who live in the same village. They therefore do not have to manage the canal with people from other villages whom, sometimes, they cannot trust fully.

When people of different political communities have to manage a scheme together, distrust may easily emerge. Mutual obligations outside the irrigation scheme may push



CCT/Ferraton

*Viable designs of canal networks and plots must be based on the organisational patterns of male and female farmers*

“stranger” members to “help” fellow “stranger” members who live in the same village and on whom they depend for other things. Also, on the village schemes a situation is avoided in which people living in villages that do not recognise any common authority other than the state, and that may have several bones of contention between them, have to arrive at collective decisions.

Another finding concerns the water distribution. On normal schemes, the canal network is centrally managed on the basis of the requirements of the crop. No farmers or groups hold *rights* to water. On the village schemes, on the contrary, members of irrigation associations have a *right* to water. They have obtained that right by clearing the land and by digging the canals, or by buying a share. They distribute water on the basis of those rights. The water distribution is not the outcome of some plan drawn up by the central manager. Rather, it is the result of day-to-day negotiations between those who have their turn, others who would like an additional water gift, the pump operator and the chairman of the association.

At the level of the plots, the research shows that the rapid expansion of irrigation in the Senegal valley is linked to the fact that the new schemes *reinforce* the existing farming system, by introducing an irrigated “wet foot” crop. The new schemes do not *replace* the farming system,

unlike most other state-linked schemes.

### A new irrigation design

In plantation-like designs for irrigation schemes, it is assumed that relationships between farmers do not change. The research project, however, made clear that the societies in the Senegal valley are changing rapidly. One example is the gradual move of people of slave descent towards a position in which they are almost equal to the freeborn farmers. Another consists of the rapidly increased importance of migration. These changes are reflected in the irrigation schemes. Persons of slave descent formerly could not own land. Now, they own land on the schemes in almost the same proportions as the freeborn farmers. And without the migrants, the irrigation schemes probably would not exist. A third change consists of the numerous irrigated gardens that female farmers have created in the wake of the rice schemes for the male farmers.

Irrigation engineers are gradually becoming aware that viable designs of canal networks, structures and plots are possible only when they are based on the ever-changing organisational patterns of the male and female farmers. Certain engineers have already started to work on a new design method in which they interact personally with the male and female irrigators, discussing with them the man-

agement implications of various canal and plot layouts. This method revolves around the organisation of the communication between farmers and engineers and on contracts between agencies and farming groups. These contracts require farmers to invest in the scheme and in return give them the right to impose their own design criteria or else refuse a scheme.

In this way, new irrigation development will do away with the standard, plantation-like schemes that have their origin in the colonial era. In their stead, irrigation schemes will spring up, based on the scientific insight that viable irrigation supposes close matching of physical with social structures. In this respect, the schemes will resemble the tens of thousands of irrigation infrastructures that are managed by farmers on Kenya's and Tanzania's hillsides, in Niger's Air mountains, in Sudan's Darfur, in Guinea's mangrove swamps and elsewhere. The new schemes will bring the benefits of irrigation without emptying the treasuries of the governments, as they will be managed by the farmers rather than by state-employed technicians.

One final note. The new schemes need not be small. They may be part of large-scale networks covering thousands of hectares. These infrastructures will be designed, not for central management but for farmer autonomy. They will contain reservoirs that it will be the task of the general management to fill.

Irrigation associations of farmers, male and/or female, will be responsible for the upkeep and management of the reservoir. They will be relatively independent from the agency managing the main canal, that may be made accountable to the assembly of irrigation associations. G.D.

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# Gezira: the largest irrigation scheme in Africa<sup>(\*)</sup>

by Osman A. A. FADL<sup>(\*\*)</sup>

The world political (and trade) situations in the nineteenth century were dominated by the drive of colonial powers to annex territories and expand their political influence. British occupation of the Sudan in 1898 was in the strategy of expanding areas of cotton production. At the time supplies of raw material for the important textile industry were insufficient.

Sudan had a subsistence economy since farming was by nomads and by small farmers who used hoes to till their rainfed plots. Along the Nile banks, settled farmers owned narrow strips of land which they put under date palms, vegetables and dura. For centuries they used oxen powered "sakias" to lift water from the river; a height of two metres in the flood season and eight metres in summer.

The new colonial administration in the Sudan found that it was necessary to plan for expanding revenues to finance its responsibilities in the country. The available known resources for development were land and water. However, concerns were expressed that use of water from the Nile should not jeopardise the interests of Egypt and use of land should benefit Sudanese citizens. The development of Gezira, therefore, was a legacy of those times.

## Description

Prior to the foreign occupation of the Sudan the term "Jezira" (Arabic for island or peninsula) meant to rural Sudanese, all the land between the White and Blue Niles. Subsequently, and for practical reasons, the term was confined to the 2.1 million hectares described by a triangle: its apex at the confluence of the two rivers and base at the Sennar-Kosti railway line.

The most striking feature of the Gezira plain was the flatness of the

landscape which sloped northwards at 5 cm/km. The dominant clay mineral was montmorillonite. In the hot dry summer the parched surface developed wide deep cracks which sealed in the wet months and retained pools of water from the tropical storms of July to September.

The Gezira Scheme covers 0.88 million hectares of command area allotted to more than 100 000 tenants. Each holds 16.8 or 8.4 ha divided into four equal rotation plots called tenancies and locally known as "hawashas". Production is centrally planned and therefore, the management and tenants divide the plots as follows: cotton, wheat, sorghum/groundnuts, fallow. Vegetables are grown in the sorghum/groundnuts plot. Forages have lately been introduced following the official recognition of the importance of the animals kept by tenants and the role of that wealth in the national economy. Areas and production of rotational crops in the Gezira in the period 1976-77 to 1988-89 are shown in Table 1. The role of the Gezira in the production of both food and export commodities is apparent. However, the progressive reduction in cropping intensity from 1978 to 1989 has been caused by the failure to maintain the existing infrastructures such as silt clearance and repairs of control structures. Cutting of crop areas in the middle of a season, without compensation, because of the failure of water supplies was demoralising to tenants. The Gezira Rehabilitation Project, estimated to cost US\$ 285 million, does not seem to have increased the intensity yet. Although the Sudan has not so far fulfilled the expectation of becoming the "bread basket of the Middle East", for various reasons, the potential is still there.

## Water resources and drought

Though the rainfed sector in Sudan is an important supplier of crop and animal products, for both local and export markets, the irrigated sector has, for

obvious reasons, acquired most of the political and financial attention. Irrigated agriculture has always depended on the Nile waters which were divided in the 1959 "Full Utilisation of the Nile Waters Agreement" between Sudan and Egypt. The average annual discharge at Aswan since 1900 was 84 billion m<sup>3</sup> of which the Sudan acquired 18.5 billion m<sup>3</sup> and Egypt 55.5 billion m<sup>3</sup> (Both at Aswan). However, in the season 1984-85, Ethiopia and the Sudan were gripped by severe drought and famine. The natural flow of the Blue Nile was exceptionally low. The Government therefore issued a decree, for the first time, to stop wheat growing in the Gezira.

## Canal system and indenting

The ingenious design and operation of the Gezira system were modelled at the beginning of the century on the experience gained from the Indian sub-continent. However, official interest and scientific investigations were exclusively directed to the cotton crop. Admittedly, dura, the staple food of the tenants, and "lubia", the legume fodder, were included in the rotation, but the rules and regulations testify to their official level of importance. In the 1925 Memorandum on Working Arrangements (of canals), for example, the following is stated: "The area under lubia or dura will be grown only as a safety valve crop to draw off excess water in an emergency such as heavy rains or a breach." Similarly; "very little is known of the water requirements of dura, but this is not of immediate importance, as the watering of dura will be a secondary consideration." Since then the Government and the management have always had the decisive voice in the Gezira.

In 1919 the layout of fields was decided by considerations of indenting and irrigation planning. The land was divided into standard rectangular units 1350 m × 280 m called Numbers. A Number was put under one leg of the rotation and was irrigated by one water-course (called Abu XX). Abu XXs were designed with a capacity of 125 to 250 litres per second. They were fed from minor canals through adjustable field outlet pipes of standard 35 cm diameter.

Numbers were divided into 9 or 18 equal tenancies depending on the size of allotments. Tenants operated

(\*) Text of a contribution to a seminar organised in June 1990 in Brussels by the CTA and the Academie Royale des Sciences d'Outre-Mer.

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**Table 1: Crop areas (000 ha) and yields (kg/ha) in Gezira rotation in seasons 1976-77 to 1988-89**

Season	Cotton <sup>(1)</sup>		Wheat		Dura		Groundnut		Légumes %	
	Ar	Yld	Ar	Yld	Ar	Yld	Ar	Yld	Ar	GRA <sup>(2)</sup>
1976-77	208	395	210	1 392	147	1 572	105	2 880	13	77
1977-78	216	464	194	1 553	147	720	110	3 000	10	77
1978-79	208	354	206	602	143	1 025	90	2 093	11	74
1979-80	225	287	151	1 142	136	1 200	95	2 880	14	70
1980-81	209	249	153	1 200	125	600	71	1 452	18	65
1981-82	181	419	112	960	143	960	110	2 880	15	63
1982-83	202	507	65	1 440	134	1 171	62	2 880	12	54
1983-84	207	532	111	931	171	1 277	57	1 834	15	63
1984-85	194	564	00	<sup>(3)</sup> 00	175	926	89	1 594	15	53
1985-86	167	383	101	965	241	1 680	43	2 880	13	64
1986-87	173	533	75	1 152	187	1 488	63	3 120	15	58
1987-88	160	494	105	1 152	163	1 200	66	3 120	17	58
1988-89	169	561	114	1 349	178	1 210	46	2 880	19	59

Source: Agricultural Administration, SGB.

(1) Note: Cotton yield given for lint of ELS, LS and MS varieties grown.

(2) GRA: Gross Area.

(3) Year of severe drought and too low B.N. flood; Government decided not to grow wheat in Gezira that season.

Abu XXs and controlled the water on their fields according to a theoretically tight schedule.

Agriculture field managers were in charge of operating minor canals and of indenting on Assistant Divisional Engineers of the Ministry of Irrigation (MOI). An indent is a written order stating a daily discharge (in cubic metres) into a minor canal for a fixed number of days until the following indent. In practice under the night storage system of Gezira, a field manager indents by counting the number of pipes (FOPs) and multiplying this by 5 000 m<sup>3</sup> which is the design 12 hr-day discharge of an FOP. According to the rules, an Abu XX under 50% cropping intensity should be opened for 7.5 days and closed over the following 7.5 days. However, CWR data for the Gezira is now available and the use of Penman's evaporation (E<sub>o</sub>) and Crop Factors (=ET/E<sub>o</sub>) were given as alternatives which are more plausible than the orthodox method of indenting.

### Tenants methods

According to the books, a tenant should divide each "hawasha" into more than 120 small basins. The conventional wisdom was that water should be meticulously controlled to avoid flooding of crops, especially in the rainy season. Waterlogging in Gezira is detri-

mental to crop stands particularly in the early stages of development. However, tenants had a different, albeit practical, wisdom which developed from their struggle to reduce costs and labour requirements, given their circumstances. They thus adopted the "open plan" practice in which they divided their land into a few large basins and minimised attendance to their irrigation. Such innovation, though practicable, is far from ideal, and it is still frowned upon in official circles.

### Crops: official tenants' attitudes

Officially, and more often for international development and donors, decisions are influenced by economic considerations and market forces. To a Gezira tenant, cotton enjoys, deservedly, the official interest. Wheat is getting more political attention in a world where food security is prominent on the agenda. Wheat still does not appear much in the meals of most tenants. They ridicule it as a sweet bread which does not reflect well on hospitality. Hospitality is an important convention in the culture of the Gezira.

The staple food, as in many parts of Sudan, is dura. Tenants happily eat and offer to their guests sour dura bread or porridge. Moreover, dura stalks are important roughage for their animals

during the hot summer and an important source of cash in difficult times. No cotton picker can be persuaded to work on a "hawasha" before guaranteeing adequate stalks both for his donkeys and for building temporary dwellings for his household.

Dura and groundnuts should be cultivated on the same Number. The objective of this technique is to improve soil fertility for the following cotton crop by inclusion of a legume. Tenants have not complied with the regulations, most of them renting land to camp dwellers to grow groundnuts.

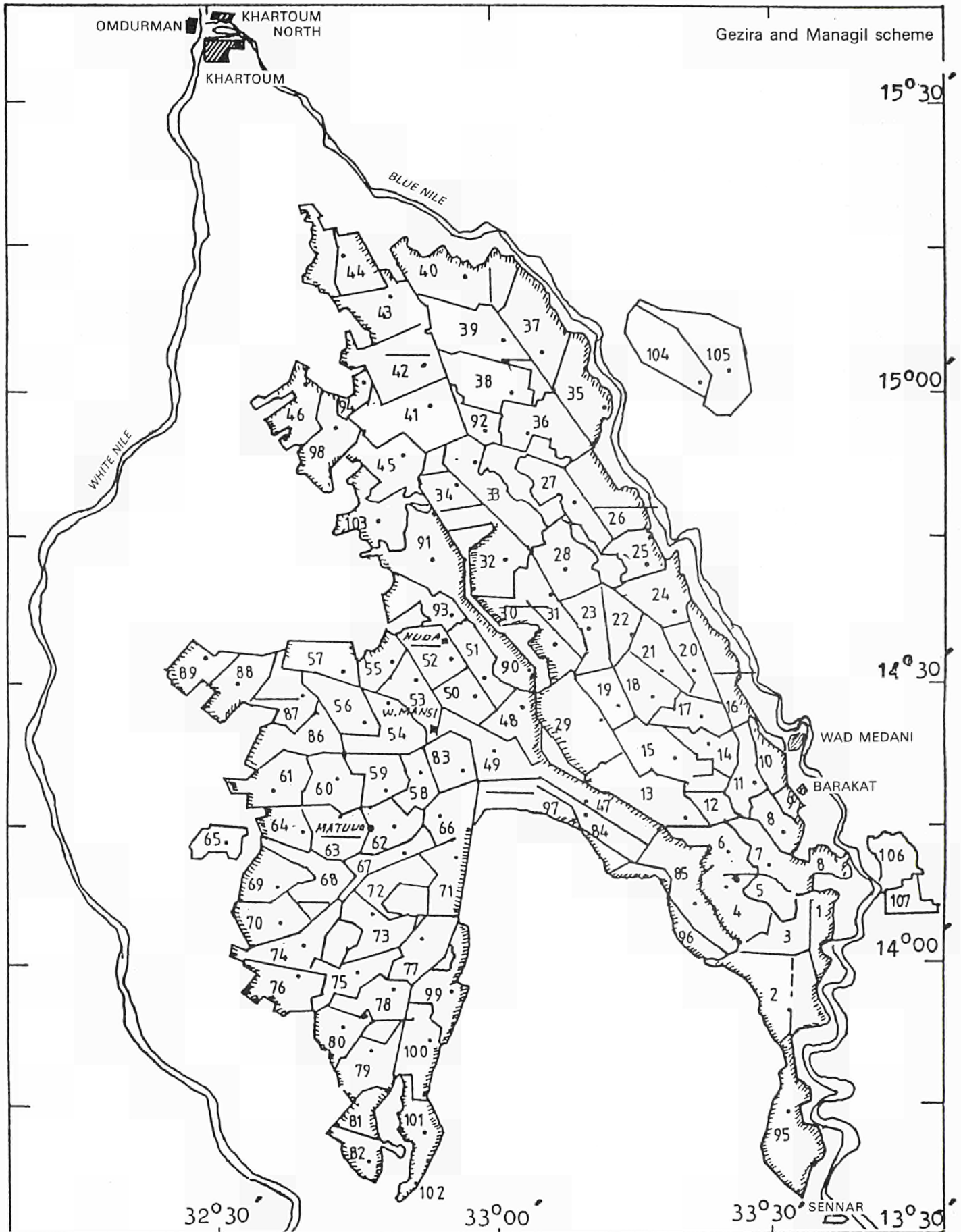
Groundnuts is a cash crop which is marketed, sometimes, as a green fodder for immediate cash during the season. The need for immediate cash or credit availability dominates a tenant's decisions. The market and net returns in one season reflect on the readiness of tenants to grow groundnuts, and consequently, on areas, level of management of the crop and the order of priorities in the following season (see annual variation of areas in Table 1).

### Irrigation and soils

Gezira's present rotation uses 7 billion m<sup>3</sup> of water annually. The Blue Nile water has 130 ppm soluble salts which contain little sodium. There is no authentic evidence of salinisation or sodicity caused by the irrigation of the last 70 or more years. Salinisation began at the very outset of development in Gezira and subsequent experimental evidence indicates a slow but progressive reduction in salinity.

The vertisols have a unique moisture regime which regulates their moisture uptake. Soils take up water on flooding until they reach a certain degree of "wetness" after which infiltration rate becomes negligible. Tenants understand that their canal water demand depends on the cropping history of the land and the date of the last rainfall. Measurements show that water duties on Gezira clays vary between >2 500 and <450 m<sup>3</sup>/ha depending on the moisture profile at the time of flooding. Such characteristics have prevented formation of shallow water tables which occur below 15 m. No matter how much and for how long water is applied to the surface it does not reach the groundwater, the depth and quality of which remains unaltered.

Fig. 1: Group and block division



### Chemicals

Gezira clays are so fertile that, commercially, only nitrogen fertilisers are used. Recently agricultural research recommended phosphorus for wheat, but the practice is still limited because of its cost and the country's difficulties regarding imports. However, from 1978-79 to 1988-89 the Gezira has used on average 70 000 tons of urea annually.

Agricultural development of Gezira has introduced both the use of chemical pesticides and the spread of water-associated diseases. Toxic insecticides for cotton are widely, and certainly illegally used by tenants on their vegetable gardens. Sudan imports herbicides worth US\$ 13 million every year. Out of that the Gezira uses a quantity costing US\$ 6 million. The bill for insecticides for the country is more than US\$ 50 million and the amount Gezira sprays on its crops costs US\$ 30 million.

Toxicological studies in Sudan have shown the geographical spread of chemicals in human blood, various food items and mothers' milk. Sometimes chemical containers are used for carrying drinking water. More effort than there has been so far, needs to be put into education, extension, control of sales, supervision of protection standards and law enforcement.

### Water-associated diseases

There has been a lot of international support for the programmes of control of malaria, schistosomiasis and diarrhoeal diseases. The Blue Nile Health Project and the support of Japan and other donors in combatting these debilitating diseases deserves special mention. The Epidemiology Unit, the BNHP (Annual Report 1988), reported "that wherever comprehensive control activities were carried out properly a concomitant reduction in the prevalence of the three diseases occurred". The comprehensive strategy was based on health education and community participation, provision of clean domestic water supplies and improvement of sanitation and vector control. The loss of man-days because of illness and obligatory social visits to the sick cannot be overestimated. Studies at the Gezira indicated that it was the 5 to 9 and 10 to 19 year olds who were high risk groups because of the long contact periods they had with water in canals which were a source of contamination. ○ O.F.

## Irrigation and the rice sector in Suriname

by Bastiaan de REGT (\*)

Suriname, which became independent in 1975, is located on the north-eastern coast of South America bordering Guyana, Brazil and French Guyana. The total area of Suriname is about 164 000 square kilometers. The natural resource base consists mainly of large bauxite reserves, a considerable hydroelectric potential and a well developed agricultural sector.

Suriname has a good reputation in Europe; who has not seen the bags of rice with the heading "Suriname rice — super long grain" in the shops and supermarkets?

There are records of rice being exported from Suriname as far back as 1687. The most significant period for Suriname as a rice producer, however, is from the 1960s onwards when work on mechanised rice growing began to pay off. The adoption of double-cropping was a further boost to rice production.

Due to favourable conditions like soil, water and climate, various irrigation projects, both large scale and small scale, have been implemented in the coastal area. Initially, these were not meant for the cultivation of rice only; they were also to be used for other dry annual crops. However, experience has shown that, in practice, the combination of dry and wet crops is difficult given the characteris-

tics of the soils in these coastal plains.

Most irrigation projects are localised on light or heavy clay grounds, reclaimed from swampy terrain, which are ideal for the wet paddy culture, but less-so for the dry annual crops.

The best-known, and one of the first large scale mechanised rice irrigation schemes in the world, is the Wageningen project situated in the western part of Suriname in the Nickerie district about 45 km from the district capital, Nieuw Nickerie.

Originally, the Wageningen project was established for the settlement of Dutch farmers on empoldered clay soils. Each farm would have had a total acreage of 72 ha, of which 1/6 in ley and 5/6 under paddy during the major rainy season, rotated with annuals such as soybeans and maize during the minor rainy season. This original, fully mechanised model could not be realised due to technical problems related mainly to soil cultivation. On the other hand, the mechanisation of the rice proved a great technical success and owing to the absence of alternatives, the Wageningen project developed into a completely mechanised mono-culture. Eventually it turned out that with an acreage of 72 ha the income was insufficient to provide a reasonable living for the Dutch farmers, and therefore, the entire 10 000 ha rice

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*The Wageningen project is one of the first large-scale mechanised rice irrigation schemes in the world.*



scheme is operated by a Foundation (Stichting Machinale Landbouw).

During the period 1955-1965 a lot of experience was gained on aspects such as:

- land clearing and reclamation;
- varieties, selection/breeding and seed production;
- cultivation methods including mechanisation and intervention by planes;
- post-cultivation, harvesting, transport;
- handling, drying, storage, processing by-products;
- marketing and export.

From 1965 onwards this experience was the basis for the development of medium and small-scale rice farms. This led to a total acreage of irrigated rice farm of approximately 50 000 ha which represents an average of 0.13 ha per head of population. This is probably one of the highest ratios in the world.

The largest area of rice production is in the Nickerie district with about 44 600 ha in 1988, about 50% of this area being double cropped. The area is a mixture of large and small scale farming, ranging from the SML with its 10 000 ha down to farms of 10-12 ha.

In 1986 the total area planted (both seasons) was 75 120 ha with a gross production of about 300 000 tonnes dry paddy with a moisture content of 14%. About 108 000 tonnes were exported to the EEC as cargo rice for an export value of Sfl 63.8 million. Due to unforeseen circumstances production has dropped over the last few years.

As an ACP country, Suriname benefits from special trade arrangements for the import of rice products into the EEC. An annual crop limited to 130 000 tonnes of cargo rice or rice products (long grain rice) can be imported into the EEC on preferential terms.

Physical potential for irrigation schemes is virtually unlimited in Suriname, the limiting factors being labour; the total population of Suriname is only 350 000 to 400 000 people.

However, these highly mechanised farms with their continuous monocropping pattern cannot be extended much further due to the following constraints.



*The physical potential for irrigation schemes is virtually unlimited in Suriname. The only major constraint is the shortage of labour*

### Economic

Taking into account the investment costs, the cost price for producing 1 tonne of paddy is much higher under fully mechanised conditions (as is the case in Suriname) than in the low labour-cost countries of SE Asia. The only way to reach a competitive cost for mechanised rice farming is to obtain the highest possible yields combined with a highly qualified management at all stages of rice production, processing and marketing.

### Technical

The double-cropping system, which is of essential importance, necessitates a very tight schedule for different types of actions (ploughing, sowing, harvesting) as well as strict control over the use of irrigation water. The importance of proper maintenance of equipment and hydrological infra-

structures, as well as a good system for distribution of inputs and spare parts do not need to be stressed.

### Environmental

Monocropping always contains a higher risk than mixed cropping when seen in the context of climate and disease. This risk is becoming more serious as the genetic basis of plant material is less and less diversified as is often the case for most annual crops.

Irrigated rice farming under the durable cropping system also poses a threat to the environment as the irrigation water can be considered as an important vector for transmission of water-borne pests and diseases affecting human life (malaria, bilharzia, cholera, diarrhoea, etc.).

The bigger the area for monocropping, the bigger the risks for the environment. ○

B.d.R.

## Development with a human face – proposals from the UNDP

*Economists and statisticians have always found it difficult to translate what is, essentially, the shifting and subjective reality of the human condition into figures. And the more social and psychological data they use, the greater the likelihood—or danger—of deviating from the real situation.*

*However, if “homo oeconomicus” is a fiction, he is a necessary fiction. How is it possible to plan and programme the nation’s regional development and establish budgets and priorities without any estimates of the size and location of the present and future population and its (economic, social and financial) behaviour, its output and its needs?*

This is the challenge taken up by the Human Development Report 1990<sup>(1)</sup> published earlier this year and prepared by a team of experts convened by the UNDP. The report suggests producing an annual “human development index” whereby “human progress” can be quantified and the various countries classified according to the success they have had with the human development of their population as reflected in life expectancy, literacy, purchasing power, gender equality in education, income distribution and even the degree of democracy and respect for human rights. It uses an analysis of the past 30 years and experience in 14 countries to draw some general conclusions which should be a basis for future political choices — for that is where the interest of the authors’ very difficult undertaking lies. There is no question of praising or blaming particular countries. On the contrary, the idea is to grasp the reasons for a given situation and to underline something which cannot be too strongly emphasised—that, as UNDP official W. Draper says in his introduction, “while growth in national production (GDP) is absolutely necessary to meet all essential human objectives, what is important is to study how this growth translates—or fails to translate—into human development in various societies. Some societies have achieved high levels of human development at modest levels of per capita income. Other societies have failed to translate their comparatively high income levels and rapid economic growth into commensurate levels of human development. What were the policies that led to such results?”

### Defining and measuring human development

The first thing to do in answering this question is to define and measure human development.

Human development, the report maintains, is the process of widening the choices open to the individual, in the light of his basic needs (a long and healthy life, knowledge and a decent standard of living). Such aspects as political freedom, creativity, human rights, self-respect, leisure and culture may be involved. Per capita income is thus far from being an adequate means of measuring development, particularly since it may not take development into account (if, say, drugs are taken instead of proper food).

The report suggests measuring human development (rather than increasing the number of variables, which could make for tables that are difficult to interpret) by highlighting three key factors—longevity, knowledge and standard of living—and recognising that the corresponding indicators—life expectancy, literacy rate and real per capita GDP adjusted in the light of purchasing power—are by no means perfect. In particular, national averages may mask major differences from one region or one zone to the next (see box), so economic techniques of varying degrees of sophistication have to be used to make corrections, with all the attendant risks of error, amplification of mistakes emanating from the original statistics and so on. An index is then elaborated, using as its basis the maximum and minimum values observed for each indicator, the minimum value (1) being the worst situation observed in the countries under scrutiny in 1987 and the maximum value (0), the best. The minimum value for life expectancy, for example, was 42 years (recorded, for

example in Ethiopia) and the maximum 78 years (Japan). Each country in the analysis was then placed on the scale of 1-0 constructed for each indicator and the average of its three positions worked out. The resulting figure, subtracted from one, was the “human development index” of the country in question. One may, of course, question the important but possibly arbitrary choice made in the report, namely to ascribe the same statistical value of all three indicators, regardless of country, particularly since, as we shall see below, each country is free to choose its own priorities and may, for example, prefer making an effort with literacy rather than health. However, any weighting of one indicator in relation to the other two would clearly have been impossible to justify in the absolute.

However, readers who wanted to see factors that are difficult to quantify (freedom, creativity and so on) taken into account in the report’s suggested definition of human development, will be disappointed when they find out that they are not. But how could it be otherwise? The report itself recognises the problems of concept and method that would be involved in trying to quantify them and concludes that it would take “a special effort to come up with a simple way of measurement that took every aspect of human freedom into account”. Perhaps, but one is then forced to speculate whether there is any justification in talking about “human development” and whether some more restrictive term—“social” for example—might not be better, particularly since the report’s examples of countries of “democratic human development” include some where the trends of the past few years are, in the eyes of Amnesty International, among others, anything but democratic.

(1) Published for the UNDP by the Oxford University Press, Oxford, UK, 1990. The project director was Mr Mahbub ul Haq, former Pakistani Minister of Financial Affairs and Planning.

Another limitation when it comes to working out the index is the growing difficulty of making any progress with human development. The report gives the example of a 10-year increase in life expectancy. Gaining 10 years from the age of 40 upwards is an increase of 25%, but gaining them from the age of 60 upwards is only 18% due to the way the computation of the percentage works. Yet it is relatively easier to increase life expectancy from 40 to 50 (as the starting point is very low and any measures which have to be taken, to control epidemics, for example, soon bear fruit) than it is from 60 to 70. So the report suggests calculating progress the other way about and starting from an "ideal" life expectancy of 80 years, so that gaining the 10 years between 60 and 70 and bringing the shortfall between the actual and the ideal age down from 20 years to 10 is a 50% improvement, and going from 40 to 50 (i.e. bringing the shortfall down from 40 to 30 years) is 25%. This different statistical presentation of the same fact is a better reflection of what happens in reality and should be taken into account in the calculation of the index.

The situation in the 40 ACP States mentioned in the report is summed up in the table. There is nothing very surprising about the resulting classification, overall, although it confirms the gravity of the situation in the poorest countries.

### Comparing present and past

The report then puts forward a number of conclusions based on these various calculations and the main ones are listed below.

**1. The developing countries have made significant progress towards human development in the last three decades.** For example, life expectancy in the South rose from 46 years in 1960 to 62 years in 1987. The adult literacy rate increased from 43% to 60%. The under-five mortality rate was halved. And, despite the addition of two billion people in the developing countries, food production exceeded the rise in population by about 20%. *But* there are still more than a billion people in absolute poverty, 900 million adults unable to read and write, 1.75 billion without safe drinking water, 100 million completely homeless, 800 million who go hungry every day, 150 million children under

## What the national averages mask

*A first classification can be obtained by putting the following four countries (col. 1) into descending order of per capita GNP (figures for 1987). A second classification (col. 3) is obtained by correcting the first to reflect variations in purchasing power. But a third classification (col. 5) which is quite different and which contrasts with the first one, is obtained if the previous results are adjusted in the light of income distribution (using the Gini weighting) (\*).*

Country (1)	Per capita GNP (US\$) (2)	Real per capita GNP (US\$) (3)	Gini weighting (4)	Per capita GNP adjusted to reflect income distribution (5)
Panama	2240	4010	0,57	1724
Brazil	2020	4310	0,57	1852
Malaysia	1810	3850	0,48	2001
Costa Rica	1610	3760	0,42	2180

(\*). This is an economic device used to detect disparity in income distribution. It is based on breaking the population down into 100 sub-groups of equal size (i.e. each containing 1% of the population) and evaluating the percentage of national income received by each. If each sub-group gets 1% of the income, there is no disparity and the weighting is equal to 0. If one sub-group gets it all, there is maximum disparity and the weighting is 1. A weighting of 0.50 or more shows that a small part of the population is getting a large part of the income.

five (one in three) who are malnourished and 14 million children who die each year before their fifth birthday.

**2. North-South gaps in basic human development have narrowed considerably in the last three decades, even while income gaps have widened.** In 1987, the average per capita income in the South was still only 6% of that in the North. But average life expectancy was 80% of the northern average and the average literacy rate was 66%. Developing countries reduced their average infant mortality from nearly 200 deaths per 1000 live births to about 80 in four decades, a feat that took the industrialised countries nearly a century to accomplish.

**3. Averages of progress in human development conceal large disparities within developing countries — between urban and rural areas, between men and women, between rich and poor.** Rural areas in the developing countries have on average half the access to health services and safe drinking water that urban areas have, and only a quarter of the access to sanitation services. Literacy rates for women are still only two thirds of those for men.

**4. Fairly respectable levels of human development are possible even at fairly modest levels of income.** For example, Sri Lanka, with a per capita income of \$ 400, has managed a life expectancy of

71 years and an adult literacy rate of 87%, whereas Brazil, where the per capita income is five times larger, has a life expectancy of only 65 years and an adult literacy rate of 78%.

**5. The link between economic growth and human progress is not automatic.** If the distribution of income is unequal and if social expenditures are low (as in Pakistan, for example) or distributed unevenly (Brazil), human development may not improve much, despite rapid GNP growth.

**6. Social subsidies are absolutely necessary for poorer income groups.** However, an attempt should be made to see them as an efficient way of redistributing income which does not interfere with the proper allocation of resources.

**7. The developing countries are not too poor both to pay for human development and take care of economic growth.** Social returns from female literacy, for example, include reduced fertility, reduced infant mortality, lower school dropout rates, improved family nutrition and lower population growth. Governments should also pay special attention to military spending, as the developing countries as a group spend more on the military (5.5% of their combined GNP) than on education and health (5.3%).

Country (1)	Life expectancy at birth (years) in 1987 (2)	Adult literacy (%) in 1985 (3)	Real per capita income in 1987 (4)	Human development index (5)
Niger	45	14	452	0,116
Mali	45	17	543	0,143
Burkina Faso	48	14	500	0,150
Sierra Leone	42	30	480	0,150
Chad	46	26	400	0,157
Guinea	43	29	500	0,162
Somalia	46	12	1000	0,200
Mauritania	47	17	840	0,208
Benin	47	27	665	0,224
Burundi	50	35	450	0,235
Mozambique	47	39	500	0,239
Malawi	48	42	476	0,250
Sudan	51	23	750	0,255
CAR	46	41	591	0,258
Senegal	47	28	1068	0,274
Ethiopia	42	66	454	0,282
Zaire	53	62	220	0,294
Rwanda	49	47	571	0,304
Angola	45	41	1000	0,304
Nigeria	51	43	668	0,322
Liberia	55	35	696	0,333
Togo	54	41	670	0,337
Uganda	52	58	511	0,354
Haiti	55	38	775	0,356
Ghana	55	54	481	0,360
Côte d'Ivoire	53	42	1123	0,393
Congo	49	63	756	0,395
Tanzania	54	75	405	0,413
Madagascar	54	68	634	0,440
PNG	55	45	1843	0,471
Cameroon	52	61	1381	0,474
Kenya	59	60	794	0,481
Zambia	54	76	717	0,481
Gabon	52	62	2068	0,525
Zimbabwe	59	74	1184	0,576
Lesotho	57	73	1585	0,580
Botswana	59	71	2496	0,646
Mauritius	69	83	2617	0,788
Jamaica	74	82	2506	0,824
Trinidad & Tobago	71	96	3664	0,885

8. The human costs of adjustment are often a matter of choice, not of compulsion. Indonesia and Zimbabwe, for example, reorganised their budgets during a period of adjustment to protect their human development programmes, but other adjusting countries sacrificed their education and health and allowed their military spending to increase.

9. Some developing countries, especially in Africa, need external assistance a lot more than others. The concept of short-term adjustment is inappropriate in Africa, which has a growing tendency to poverty and should be a priority recipient of all international human development aid — focused on long-term development restructuring.

10. In the report's other conclusions the emphasis is on the need to step up aid to the developing world, reorganise technical assistance, adopt a participatory approach, tackle urban development imaginatively and avoid sacrificing the environment to development.

### Pragmatic aims

One interesting part of the report, and one which the politicians may well criticise, suggests nothing less than being more specific about global objectives of the "let us achieve this ideal for all in 10 years" type, beloved of big international meetings. In fact, it says, the "operational feasibility and overall credibility of global targets in human development will increase considerably if four criteria are met:

— The number of global aims should be kept small.

— The implications for human and financial resources must be worked out in detail, country by country, *before* fixing any global aims.

— Different targets should be fixed for different groups of countries, depending on their current state of development and past rates of progress.

— National strategies for human development should bridge national planning and global target setting".

So it all depends on local conditions. "There can be no presumption", the report says, "that two countries with equally low human development and equally sparse resources would attach equal importance to each component of human development". Although, it adds, "adjusting planning priorities so they reflect national preferences obviously means having the machinery to assess what the population actually wants, and the efficiency of this machinery depends on the democracy and decentralisation of the political and economic systems and the encouragement of participatory development".

Such pragmatism is welcome and should be used with the means of action too. The precise fixing of aims, the report says, should very much depend on the country having the administrative and technical potential to manage them.

### More research

Although the report is based on a rather impressive battery of statistics, it still pleads for more research to be carried out, particularly in the following fields:

— the annual collection in each country of data on life expectancy, literacy, infant malnutrition and absolute and relative poverty and the breaking down of these data by population and income group and urban and rural areas;

— the creation of a human development production function — for example, what is the most efficient combination of health care, education and nutrition when it comes to lowering infant mortality?

— investigation of alternative strategies and methods of financing and reorganising the social sectors;

— a study of the forms and impact of decentralised decision-making and of the machinery likely to encourage proper population involvement, particularly among groups lacking in organisation and influence (women and landless peasants, for example).

It is clear that this first report on human development raises as many questions as it answers. One could criticise it for this, but given that what is being discussed is the very future of humanity, can we honestly say, at whatever stage we have reached, that we know enough to stop thinking about the problem? ○ M.-H.B.

# Asian and Latin American Experience

## Lessons for Africa

by Gustav RANIS (\*)

Assessing the relevance for Africa, especially sub-Saharan Africa, of experience across regions as disparate as Latin America and Asia is something of a risky enterprise. However, a basis for comparison may exist if one adopts an evolutionary view of development, i.e. one that envisions the existence of sub-phases for each type of developing country in its transition from agrarianism to modern growth.

Based on empirical observation, a primary or easy import substitution sub-phase has been identified as the starting point for most developing countries, though deviations occur at the inevitable end of that period. The paper attempts to draw on the experiences of countries like Taiwan, Korea, the Philippines and Thailand in Asia and Mexico and Colombia in Latin America, to see what lessons they offer for countries like Ghana and Kenya, in their adoption of different development strategies after the initial sub-phase.

### Current African development in a historical and typological context

The different development experiences of these countries may be summarised in four phases, Africa being present only in phases 1 and 2. The archetypical transition process for most countries should have been from one sector, agrarianism, to agrarian dualism — characterised by a concomitant increase in agricultural productivity and in non-traditional rural industries and services. However, phase 1 for the cases under study was often dominated by the imperialist interest in obtaining raw materials and cash crops as opposed to promoting food production and indigenous industries in the colonies. The second phase is the sub-phase of post-agrarianism often called primary or "easy" import substitution, a common feature of all developing countries attempting to build their own non-agricultural activities in the post-independence era. This phase is characterised by

an increasing value of domestically produced consumer non-durables and of imports of producer goods, at the expense of imports of consumer non-durables. In Taiwan, for example, the ratio; imports of consumer non-durables/total imports, fell from 17.2% in 1950 to 5.8% in 1970. In Kenya it has stayed at 14%.

It is here that a comparison between historical Asian and Latin American experience becomes relevant for contemporary sub-Saharan Africa still engaged in this particular sub-phase. Important cross-sectional differences can be detected in terms of the severity and longevity of this phase, the severity being judged in terms of the respective adherence to the policy package which accompanied this phase (i.e. protection of infant industries, overvalued exchange rates, low interest rates etc.). While the East Asians chose a relatively mild version, Thailand in South-East Asia presented an intermediate case, with Latin America and the Philippines choosing a more severe variant and so persevering longer with this particular policy syndrome.

The third phase then shows the important deviations between the East Asian and Latin American experiences that occurred at the end of the primary import-substitution sub-phase. East Asia shifted towards primary export substitution i.e. an effort to export competitively the same non-durable consumer goods which it had previously produced for the protected home market. This was also accompanied by balanced growth in the rural areas as between food-producing agriculture and non-traditional rural industries and services. Latin America, on the other hand, persisted with import substitution, with non-durables being replaced by the production of durables, capital goods and the processing of raw materials at home (the secondary import substitution phase). Here the urban-oriented industrial policy mixes took the place of imports in discouraging agricultural as well as non-traditional rural industries and services.

Phase 4 is a natural sequel to phase 3. In East Asia the exhaustion of the supply of cheap labour led to a shift towards more capital and technology-intensive product mixes, while also making it a net food importer. In Latin America, the secondary import substitution phase was coupled with the export promotion phase. Export promotion is the exportation, necessarily subsidised, of components of the more sophisticated and capital-intensive output mix — all this in the presence of substantial unemployed and underemployed unskilled labour.

Latin America's much lower Exports/Gross Domestic Product ratios indicate that export promotion also leads to a smaller increase in a system's overall participation in the international economy than does export substitution. This is shown in Table 1. As a result the Latin American case continued to be financed by natural resources, augmented by foreign capital, while in East Asia the industrial sector took on the burden of financing continued industrialisation, first through the export of non-durable consumer goods and then the export of more sophisticated high technology, engineering and electronics products.

Table 2 shows the differential performances over these sub-phases across countries in terms of per capita income growth and the level and trend of the distribution of income. The best performers were clearly the East Asians, followed by S.E. Asia, while the least well performing countries were the Latin Americans and the Africans. It may be important to note that the famous "necessary" trade-off between growth and distribution was entirely avoided, at least in the Taiwan case, as a consequence of early attention to agriculture, a shift towards more labour-intensive crops and the encouragement of labour-intensive rural industrial and service activities.

Possible explanations for the deviations in the choice of development path that occurred must rest partly on coun-

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**Table 1: External orientation ratios**  
 (Exports/GDP: in per cent)

	1950	1960	1970	1980	1986
1. Colombia	10.9	15.7	14.6	16.3	18.9
2. Mexico	17.0	10.6	8.2	22.4	17.0
3. Taiwan	10.1	11.1	29.6	52.2	60.6
4. South Korea	2.1	3.3	14.3	37.7	40.7
5. The Philippines	10.5	11.0	18.1	17.1	24.5
6. Thailand	15.0	17.0	18.7	25.8	28.2
7. Kenya	—	31.0	30.0	26.0	27.1

**Table 2: Post-war performance indicators**
**A. Average real per capita GDP growth rates (per cent per year)**

	1950-59	1960-69	1970-79	1980-86
1. Colombia	1.7 <sup>a</sup>	1.9	3.9	0.7
2. Mexico	3.0 <sup>b</sup>	4.1	1.9	-0.7
3. Taiwan	4.7 <sup>b</sup>	5.9	8.1	5.6
4. South Korea	1.3 <sup>c</sup>	4.9	7.5	4.3
5. The Philippines	3.2	2.1	3.3	-1.5
6. Thailand	2.8	5.0	5.0	3.1
7. Kenya	1.0	3.2	2.6	-0.9

a: 1951-59    b: 1952-59    c: 1953-59

**B. Income distribution (Gini coefficient)**

	1950	1960	1970	1980
1. Colombia	—	0.53	0.56	0.52 ('82)
2. Mexico	—	0.54	0.58	0.50 ('77)
3. Taiwan	0.56	0.44 ('59)	0.29	0.29 ('78)
4. South Korea	—	—	0.37	0.38 ('76)
5. The Philippines	0.49 ('56)	0.50 ('61)	1.50 ('71)	0.50 ('77)
6. Thailand	—	0.41 ('62)	0.44 ('68)	0.45 ('81)
7. Kenya	—	—	—	0.59 ('77)

try size, with the typical Latin American case substantially larger than the typical East Asian type and also substantially wealthier in terms of initial per capita incomes, relatively lower levels of labour surplus and a more favourable natural resource endowment (see Table 3). The East Asians thus did not have the same options for delay. Moreover, the shift from the primary import substitution orientation to a primary export substitution orientation required a change in the policy package which had to overcome the resistance of the vested interest groups including the new industrialist class, organised labour and the civil service — a task more difficult to fulfil in the relatively well-endowed Latin American case.

It has thus become a marked feature of most Latin American countries, at least until recently, to favour a heavily subsidised urban sector even while

countenancing high unemployment and worsening income distribution. It was for this reason that in the 1980s, when the international environment worsened substantially, the typical Latin American case could no longer sustain the inefficient and non-participatory growth path previously fuelled by the large volumes of foreign capital inflows. The ensuing debt crises forced a reassessment of a development strategy which had for long been sub-optimal.

**Relevance to contemporary sub-Saharan Africa**

A number of disadvantages for Africa relative to the developing countries of Asia and Latin America have been cited:

1) The international economic environment was substantially more favourable in the 1950s and 1960s, when the East

Asians were moving out of the primary import substitution sub-phase.

2) Initial conditions in terms of human capital and organisational-institutional infrastructure, differ for the late-comer countries of sub-Saharan Africa.

3) Its agricultural potential is considerably less than the other regions of the developing world, i.e. poorer soil, unreliable rainfall and relatively flat terrain with little potential for irrigation.

4) The "organic nationalism" cited by Kuznets, i.e. a cohesive national state pulling together for one common objective frequently does not exist for Africa.

5) The "land surplus" condition cited by Esther Boserup has led to the absence of individual property rights in agriculture and therefore a lack of incentives for agricultural productivity increase.

6) As a late-comer with still more pronounced mono-cultural production tendencies, Africa is also much more susceptible to external terms of trade and other shocks.

Yet some of its advantages must also be recognised:

1) Foremost advantage as a late-comer is the opportunity to learn from the developing experience of other countries.

2) Secondly, it does not as yet face the threat of sectoral clashes from strongly entrenched industrial interests as became the case in Latin America.

3) The relatively lower population pressure on the limited land, coupled with better policies (general shift away from communal land ownership and greater focus on food crops as opposed to cash crops by the research institutes) would make a convincing case for the existence of substantial potential in this area.

4) The smaller size of most African countries provides advantages both in terms of the ease of technology transfer as well as in terms of competitive non-agricultural exports.

5) As Africa was not the objective of large-scale international commercial bank lending in the 1970s, most of its vaunted foreign debt is public rather than private. Thus the debt crisis can be more easily alleviated by the activities of developed country creditors without creating major problems of moral hazard.

Thus the development prospects for sub-Saharan Africa should not be underestimated. With increasing land scarcity and individual property rules,

**Table 3: Initial conditions**  
(Approximately 1950)

	Population (in thousands)	Labour surplus <sup>(a)</sup>	Natural resources		
Colombia	11 334	3.0 ('51)	Rich (some oil, gold, silver, iron ore, copper and world famous emeralds; also rich in cash crops)		
Mexico	25 826	1.0 ('50)	Rich (zinc, lead, copper, silver, iron ore, mercury, sulphur, oil)		
South Korea	20 513	8.3 ('49)	Poor (poor quality coal, some gold, tungsten)		
Taiwan	7 981	4.0 ('50)	Poor (good coal, some natural gas, little oil)		
The Philippines	19 910	2.2 ('48)	Rich (iron ore, copper, gold, chromite, timber and some cash crops, e.g., sugar, copra)		
Thailand	18 488	3.3 ('47)	Moderate (tin, rubber, not rich in cash crops but major rice exporter)		
Kenya	8 189 ('60)	1.2 ('60)	Moderate (no coal or oil but good in cash crops)		
	Human capital resources Adult literacy rate		School enrolment ratios 1st and 2nd level		
	1950	1960	1950	1955	1960
	(in %)				
Colombia	60.0	63.0	30	41	50
Mexico	56.8	65.4	37	43	53
South Korea	76.8 ('55)	82.2	54	60	64
Taiwan	51.1	73.9	47	57	74
The Philippines	60.0 ('48)	74.9 ('58)	89	70	70
Thailand	52.0 ('47)	67.7	48	50	58
Kenya	—	19.5 ('62)	21	24	41

(a) Rural population-arable land ratios (in persons per hectare).

the role of family farms replacing plantations using hired labour could be substantially enhanced. The potential for food-producing agriculture and rural industries provides the possibility for a sustained graduation from agrarianism into vigorous dualism.

**Potentially relevant lessons for African policy makers as well as for donor/creditor institutions.**

1) Africa has the opportunity to emphasise balanced growth in the rural areas as the necessary condition for overall successful development. This means emphasising food producing agriculture and the rebuilding of rural industries in tandem with agriculture as the priority task. An exclusive emphasis on such "exciting activities" as non-agricultural exports, multinational companies and even foreign capital should be rejected.

2) The instruments of such greater rural emphasis should be the reallocation of existing infrastructure towards the building of linkages in the rural areas, i.e. roads, branch banking, irrigation facilities — and also less intervention in the domestic terms of trade and in financial markets.

3) The on-going shift from communal to private property should be further encouraged as owner-operated peasant agriculture is more likely to permit the more intensive use of land, higher yields and lower capital intensity.

4) The dualistic wage structure, characteristic of Latin America together with "premature" unionism and government minimum wage legislation should be resisted. The East Asian experience of postponing substantial organised sector real wage increases until the labour surplus has been eliminated should be kept in mind. When the wage gap between rural and urban workers is 400%, the rate of industrial sector labour absorption is approximately 1.6% annually (Latin America), while a wage gap of less than 30% leads to a 6% labour absorption rate (East Asia).

Also, given the relatively small size of the African countries, the reduction of international as well as internal trade barriers should be encouraged to support "natural" regional import substitution.

5) Donors like the World Bank and its structural adjustment programme

negotiators must recognise that Africa cannot accept further declines in consumption standards. At low levels of income there is much higher risk aversion and a greater need to lean towards mixed and intercropping patterns. The IMF compensatory facilities might well be employed to take this dimension more fully into account.

6) If adjustment with resumed growth and equity is the central purpose of assistance packages, the possibility of the ballooning of foreign capital for particular structural policy changes should be kept in mind. The experience of Latin America and Asia indicates that foreign capital can often contribute to a generalised "Dutch Disease" problem similar to that caused by an overabundance of natural resources. Carefully negotiated foreign capital packages can undoubtedly serve to ease the pain of adjusting to policy change.

7) The international community should also stand ready to finance third party technical assistance at the request of such governments, to assist in the preparation of structural adjustment packages, before they are put before the international community for action. ○

In its issue n° 123 (September-October 1990), *The Courier* published, in each language, the originals of the short stories which won first prize in the competition organised jointly by the magazine and the ACP-EEC Cultural Foundation. In English, the winner was "The Basin", by Getachew Gebrewold Ayelo, from Ethiopia. Our readers will now find, in the English translation, the short story which won first prize in French. The jury underlined the fact that the French short story had been chosen "unanimously".

Opposite, readers will find a list of the other English language entries which were short listed by the jury.

## Other entries short-listed by the English-speaking jury

Dream of One Moment, by Josephine Akarue, Nigeria  
The Monkey's Trial, by James Carmichael, Barbados  
Alien Twice Over, by F. Fraser, Jamaica  
The Summer of 1989, by Usharbudh "Shivraj" Sohur, Mauritius  
The Cloo of Another time, by Andy Gordon Chiches-ter, Guyana  
Farewell to Moira, by Maniue Vilsoni, Fiji  
The Calling, by Ronny Mpofu, Zimbabwe

## "Like a sign from God..."

by M'Bamakan Soucko BATHILY (\*)

The dog was still nosing about in the pile of rubbish. Daouda was anxious to move but frightened to leave the concession. There had been so many stray dog bites. "Yet aren't stray dogs my brothers?", he wondered. Isn't he just one more city outcast forced to beg for food? "But dogs are better off than I am", he reflected sadly.

Ah! The way was clear. The dog had trotted off. In another second or two Daouda went on his way.

It was six in the morning. The long tarred road was still fairly empty and progress easy. There was nobody to avoid, no need to worry about canvas-topped trucks wavering onto the verge or dodge dangerously zigzagging cyclists. And it was the coolest part of the day too, when the warm sand was soft to his aching palms and there was still not too much dust. Had it not been for his obsession with finding 200 francs before the day was out, Daouda would almost have been happy.

But there was all the strain of getting to the town centre. He tried to think of other things as he crawled on, taking his weight on his hands and elbows, his leaden, deformed legs trailing behind, leaving not footsteps, but a scuffmarked furrow.

"People who can use their legs don't realise how hostile the earth is",

(\*) Teaching assistant in the arts department at the Ecole Normale Supérieure in Bamako (Mali).

he reflected as he inched forward. He could not remember ever having been able to use his. They had been twisted and lifeless ever since he was a baby, unable to hold him up, devoid of flesh maybe, but still a weight, a useless one, like two bits of dead wood that had to be dragged along behind.

And if only they just had to be dragged! He had the strength for that. Crawling through the streets of the city every day had given him a chest like a wrestler and muscles of steel in his arms and he could move surprisingly fast. But the perfidious earth had left countless scars on his inert limbs. He had been cut by broken glass, in spite of the pads on his knees, and sometimes he had infected wounds.

Daouda was philosophical, however. He was used to it. He had never known the joy of walking or standing firmly on two legs either. "God says we can't all be equal", he often reflected. The world was divided into walkers and crawlers and that was the way it was and at most he felt sorry at having his fragile burden to trail along behind him.



If only he could have had a tricycle like the handicapped people who spent all their time outside that foreign embassy, picking up tips without any pretence at keeping an eye on the visitors' cars. Hadn't one of them said he earned a thousand francs a day? A thousand francs! A day! When Daouda barely managed two hundred — if he was lucky! How many times had he been back to his big brother's with less than a hundred? Daouda had never let himself be jealous of fit boys who could walk and run and play football. If he was disabled, it was God's will, but the day he had seen those invalids on tricycles, well, he was so envious he nearly cried. And there was better. Daouda still marvelled at the day he saw someone disabled like himself on a motor tricycle, going incredibly fast without even moving his arms!

His dreaming was cut short by the clattering of a covered truck and he only just had time to roll to one side

## Corrigendum

*The Courier regrets that an error was made in the list of Jury members published in our September issue. The name of Mr Francis BEBEY, the Cameroonian author, poet, musician, singer and storyteller was omitted from the list. It is Mr Bebey and not Mr Jean Metellus of Haiti, (author, neurologist and doctor of linguistics), who won the Grand Prix Littéraire d'Afrique Noire in 1968 with his novel "The Son of Agatha Moudio".*



as it ground to a halt in a cloud of dust and spilled out its passengers, with the driver shouting "Out of my way, little grasshopper, or I'll run you down".

The fat lady next to the driver burst out laughing at this witticism, but Daouda made no reply. Once upon a time, jeering and insults and slighting remarks about his handicap had brought tears to his eyes, but he was used to it by now. You do get used to pity and disdain in the end. You get used to other people thinking you are half a man shuffling clumsily along the ground. They call you "hopper" and "nasty little locust" and "spider broken legs", but Daouda was resigned to all these names and sometimes even used them, for fun, when talking to himself.

The only two things which really made him cry now were when anyone asked where his mother or father was and when he heard that folksong on the radio, telling how Soundjata, who had been crippled for 17 years, arose and walked for the first time when he leaned on a wrought iron stick fashioned by his father's blacksmiths.

Daouda waited for the truck to start up again before he moved on, thinking "I wonder where to beg today?".

Yesterday's vigil outside the large downtown food store had not been much good and big brother Ibrahima's cursing accusations about trying to make him starve were still fresh in his mind. Ibrahima's pretext for staying at home was that he was blind and he was always impatient for Daouda to come home every evening with the money for food.

"Let me get by, you filthy creature", he said to the old goat which was nibbling bits of paper by the roadside and looking at him, motionless, as it chewed. "Even the goats don't like us", he sighed, making as if to throw a stone, so the animal nonchalantly moved off a pace or two.

The day before yesterday, however, a long wait outside the foreign culture centre had paid off, but there could be no going back again today, as the children who "looked after" the foreigners' cars there had taken umbrage in the end and accused him of unfair competition on their patch.

Suddenly Daouda stopped. There, on the ground, under the big mango tree which cast its shadow on the Super Vatican disco, was a huge, ripe, whole mango. Hunger immediately spurred him on and he hastened towards the coveted fruit, but too late! The silly old goat which had blocked his path just now, came up and overtook him... and grabbed the mango. Daouda howled with rage and despair, looked vainly round for a stone to throw, then found one and hurled it at the goat, and then another and another and another. But in only two leaps the filthy animal was out of the way and Daouda felt what seemed like irony in its bleating as it pranced off with the mango in its teeth.

Was today to be as bad as yesterday? Despair came over him. The mango, so round and ripe, was a painful reminder of how hungry he was. He realised there had been nothing to eat since last night, when he had to make do with his big brother's left-overs—a few balls of millet just moistened with milk—and there would be nothing in this stomach until the evening!

"The hospital", Daouda thought, "the big hospital. I haven't been begging there for a good week and there are plenty of people coming and going. Please God, let me meet some charitable souls". And his courage came back at once and he set off again, revived.

At the crossroads by the big market, he made the most of the usual melee and, ignoring the exhaust pipes which spit bitter burning smoke into his face, crawled between the cars, trying to attract the attention of the drivers. And fortune smiled on him when the white woman at the wheel of a luxurious air-conditioned car condescended to toss him a coin — 100 francs, he realised delightedly. But all he had time to do was slip the coin in his teeth and haul himself onto the pavement. The mass of cars and motorised cycles surged forward. One of the drivers called out an insult, but never mind. Daouda, hunched on the roadside, was too busy marvelling at his coin to take any notice of the noisy rush of vehicles grazing him as they passed. "A hundred francs. All at once. How

about that!". And he felt better, knowing that this was a good day. There was no mistake about some signs.

He did not notice the policeman coming across the road.

"Hey you! Don't you know begging's prohibited? The Minister said so again on the radio last night. We don't want beggars here. You all give our town a bad image."

"But Boss, how d'you expect me to make a living? Look at me. What can I do except beg? I've got to eat. And I've got my big brother who's blind to feed too."

"It's nothing to do with me. You beggars've already been told to go. And you don't listen! You're breaking the law! It's an insult to the State you being in the streets! Even the President said so. The beggars have got to go. They can go and beg somewhere else!"

"But it's not fair! Why don't you get rid of the people who give us alms instead? If you get rid of them, we'll go too, you can be sure of that!"

Daouda bit his tongue. "Never get the better of a police officer", he remembered. And it worked, as the policeman, disconcerted at a retort he did not know to cope with, took refuge in his professional routine.

"Show me your papers. Were are they?"

"What d'you mean? What papers, Boss? Look how poor I am. See my disability. And you ask me for papers."

"Any citizen who is interrogated by an officer of the law must show an identity card", recited the policeman, feeling more assurance.

"Can't you see I'm a beggar? I was born a beggar! I've been on the streets ever since I was born. I'm disabled. My parents died soon after I was born. And I've got my blind brother to look after! Don't you know how much you have to pay for an identity card? D'you think poor people like me can afford luxuries like that? Where's your pity, Boss, I've got to live."

"So you admit you're breaking the law", the policeman said triumphantly. "OK. Pay the fine and you can go."

“Pay the fine eh? What fine? Since when have the handicapped had to pay to prove they’re handicapped? Come on, Boss, you’re not being nice to me.”

The policeman was flattered at this recognition of this power and looked pleased.

“OK. Give me that coin for some cigarettes and you can go.”

Daouda was about to protest and call out to the crowd to witness this injustice, but he lost heart. He knew full well that no-one would take a beggar’s part against someone representing power, particularly since another policeman was now coming onto the scene. Despair turned to resignation and he held out his hand. The policeman stooped, took the coin and was about to move off when he turned and sneered:

“Now be off! Don’t start your begging here or I’ll run you in.”

Daouda crept off, defeated, regretting his moment of delight just now and remembering too late that it was wrong to show happiness unless you wanted to provoke the envious and unpleasant.

He went on his way mechanically, not caring where he was or where he was going. He crawled along through the dust, his head bowed, taking no notice of the crowd moving around him. He felt as if an evil, sadistic genie had taken over his fate at the beginning of the day, deliberately switching moments of good and bad fortune, but he soon chased that idea away. “We’re in God’s hands”, he sighed.

Daouda, lost in thought, failed to see the little girl in rags leading the blind man. She avoided him, but the blind man bumped into his shoulder and tripped. “Bastard! Swine!”, he shouted, “couldn’t you keep out of my way. Even a fool knows a blind man when he sees one. Bataraden! Ala kana kókó kè e la! Tacènlèn! Mókòlankolon!”

Was it the enormity of the insults? Was it the comical outline of the blind man with his head raised to the sky, holding onto one end of the iron cane and the little girl holding the other? Daouda could not avoid bursting out laughing — although he shuffled off quickly when he saw the blind man stopping again.

“Aren’t these blind people easy to upset”, he thought, still laughing. And he recalled a scene at his big brother’s the other day, when Ibrahim had decided to read a letter to a beggar who could neither read nor write and got cross when the beggar was surprised at a blind man reading a letter to a sighted one. Blind he might be, the big brother had said, but he could still read and write, and the two men had parted with insults flying. The whole street heard them. It still tickled Daouda and the memory of it cheered him up.

He reached the park. He called out to the keeper watering the gardens and had a drink from the hose which he dragged over to him.

“It’s still a long way to the hospital, but there’s that school near by”, he thought. And he looked up. The sun was already high in the heavens and the pupils would be coming out soon.

He had to wait some time before he could get across the busy road with the never-ending stream of cars and motorised cycles, but a short break in the traffic gave him the opportunity to throw himself onto the carriageway and crawl at top speed to the pavement opposite.

He was early, he realised, and the school gates were shut. There was nobody about. Even the porter who was usually behind the gate had gone.

Daouda leaned against the wall in the shade and dragged his twisted legs round beside him. He had not been dozing long when an ugly growling made him jump and, terrified, he saw a large, thin dog bearing down on him. There was no escape. He only had time to lie down and try and get into a ball, protecting his head with his hands. But the dog was already upon him, going for his legs, and Daouda howled as the sharp teeth sank into his flesh. The dog bit him several times and shook his legs with fury, as if trying to pull them off. Daouda was sick with terror and the idea that the dog was devouring him flashed through his mind. Never had he experienced anything so savage before. In spite of the pain, he resisted the temptation to turn and face the dog. That would have made it madder

still. He would have to play dead. Eventually, after what seemed like ages, the passivity of the victim got the better of the dog’s anger and it lost interest.

Daouda stayed curled up, motionless, on the ground. His heart was beating fit to burst and he could still hear the furious growling of the dog. He moved in the end, anxious to look at his wounds, and groaned at the sight of his lacerated legs bleeding, from the deep bites. “Allah”, he cried out, with a moan of pain. “Allah!” Then he sat up and gave in to despair, hugging his bleeding legs against him as if to calm his suffering. “What have I done to offend God?”, he groaned. “Why did the dog attack me?” Daouda had never felt so distressed and abandoned in all his life as a beggar. He was overcome with the idea that he was nothing, not worthy to live on this earth. And he suddenly thought of his parents who had died 12 years before. How he wished he could join them now!

All at once, he felt a rough tongue on the back of his neck and turned round in panic. The dog! It was back! But he soon realised his mistake. It was another dog. A kind, loving dog this time and it was licking his cheeks. Then it moved round and began busily licking the wounds on his legs. Daouda, mesmerised, realised that this dog was lame too, with paralysed hindquarters forcing it to haul itself forward on its front paws. A lame dog! Lame, like himself, and helping him too, comforting him in its own way by licking his wounds! He felt joy such as he had never known before. So he wasn’t alone! He wasn’t as alone as he had thought. There was someone to be with him in his suffering!

Then, as if it shared this emotion, or as if it was trying to say something, the dog stopped, lifted its head and gazed at him. That was when Daouda felt hot tears running down his cheeks. The dog carried on gazing at him and then began to lick his tears. Sobbing, Daouda realised that the dog was trying to tell him that it was his brother, a disabled brother, just like himself. And marvelling, he thought: “This dog is like a sign from God! A sign from God!”

M’B.B.



# Food and environment – in conflict or harmony?

by Michael PIEKSTOCK (\*)

Destruction of natural resources, soil and vegetation through the continuous opening up of new farming areas, as an immediate, direct result of population growth, disrupts the natural balance and, in so doing, undermines production potential in the long-term.

How can agricultural output be increased without destroying the environment on which it depends? Can intensification of tropical agriculture, thereby reducing the need for land clearance, be a means of preserving the environment? And can those in industrialised countries ask hungry Third World farmers to refrain from intensifying agriculture in order to preserve the environment when they themselves have intensified agriculture, with damaging environmental effect, for a profit motive.

Throughout its history, traditional farming has devised sound principles relating to intensification, from mixed cultivation to staggered cultivation, but these systems have been developed gradually over the centuries in stable human environments. The changes taking place today, in population growth and urbanisation, are too rapid to be assimilated and solved by traditional farming systems.

Up until the 1950s, pastoral groups in the Sahelian region of Africa, migrating with their stock in search of grazing and water, maintained an ecological balance with the environment. In fact the movement of herds and people increased the optimum carrying capacity of the land. But, as the population expanded rapidly in the 1960s, vast programmes were established for sinking wells and boreholes. The advent of the borehole, together with improvements in veterinary medicine, produced a very substantial rise in the number of animals. And, with time, the boreholes themselves caused changes in the herbaceous spe-

cies present in pastures and ultimately a decrease in the production of dry matter and the gradual disappearance of grass over large areas. The huge increase in the number of animals was therefore accompanied by an ever decreasing yield of grass for grazing. To the soil and plant resources of the Sahel, the consequences have been nothing short of tragic.

Short-term responses may not provide the long-term answer. Much longer term planning is necessary and studying the effects on the environment of long-established agricultural intensification methods, both in the Third World and the developed world, can help hard decision-making about priorities for the future.

### Irrigation

Gezira in the Sudan is the site of the oldest and currently the largest irrigated area in Africa. Yields are high for a region where annual rainfall rarely reaches 400 mm, but alongside the various beneficial effects, the development of irrigated agriculture has also led to the widespread use of chemical pesticides and the spread of diseases associated with water. Cotton, which requires large quantities of insecticides, appears to play a role in certain forms of soil and water pollution. \$ 30 million worth of insecticides and \$ 6 million worth of herbicides are used every year and the detrimental effects are being felt by the human population. Projects on this large scale clearly entail major disruptions to the environment but, at village level, pumping systems provide irrigation for vegetable and fruit production, forest plantations, and seed production, and for watering holes which can be properly adapted for animals. In such cases villagers have clearly succeeded in their move towards a new ecosystem where they manage their own environment, perhaps because they have a direct interest in safeguarding its future. However, there is some concern over the long-term effects of the gradual depletion of fossil water tables: what

will happen in twenty or fifty years' time to the populations who based their entire existence on these water tables? This is a question that should not be ignored.

### Agro-chemicals

Industrialised countries have made heavy use of chemical fertilisers in their drive for agricultural intensification and there is ample evidence to suggest that it has had adverse effects on human health. Optimum doses have undoubtedly been greatly exceeded. Also, the optimum dose for economic profitability is hardly likely to be the optimum dose for maintaining an environmental balance. But in the African context, insufficient purchasing power has at least prevented the worst excesses of over-use. And in tropical countries improvement in the productivity of land through the use of fertilisers brings a number of other benefits including an increase in the biomass yield, better soil cover and therefore a lesser risk of erosion, and the preservation and increase of organic matter in soil through the growth of foliage and root systems. The drawbacks of fertilisers are well known in industrialised countries — eutrophication of the water, toxic nitrates, destruction of the nitrogen cycle, ionic imbalances, and excessive acidification. Damage of this kind has not yet appeared to any significant degree in developing countries and therefore there is time to reflect and plan ahead.

Planning is also the key to pest control. If agriculture loses up to 30% of its production to pest attack, the control of pests is obviously of great significance in achieving higher crop yields on a given piece of land. But controlling pests with chemicals is not without drawbacks. Chemicals are expensive, risky to store and some have limited life before they lose their effectiveness and should be destroyed — a major environmental problem in itself. Experience has shown the dangers of accumulation of

(\*) Director of Media Projects, UK.



*Wheat growing in Zambia. Does it have detrimental effects on soil and environment?*

toxic residues through misuse, both to humans and the environment. Integrated pest control, which aims to lessen the effect of pests and stimulate the action of useful organisms, is likely to be the least environmentally damaging crop protection method. It promotes careful use of pesticides and only when the economic cost of damage is more than the cost of control. Biological control of pests is the other main defence of high crop yields that forms part of integrated control and this would seem to be well suited to the vast, often remote, arable areas in Africa. With a few more years of research, biological methods, at least in the medium term, should prove to be a reliable means of safeguarding both production and the environment.

### **Mechanisation**

The use of motorised agricultural equipment encounters the same basic problem as that associated with any other costly input, which is the problem of ensuring the regeneration of resources while at the same time producing enough to pay for the cost of the input. There is no doubt that mechanisation in any form leads to an increase in cultivated areas; the same is true of animal draught. Yet an increase in cultivated areas is not the goal and if the increase is not accompanied by a significant rise in productivity, the underlying purpose of the exercise has not been achieved.

Animal draught has one major advantage over motorisation — the fact that the animals are already present. Indeed, animal draught can be the first step towards integrating livestock with crop husbandry, the first move towards intensification. Draught animals also produce organic matter, which then has to be removed and transferred to the fields — hence the need for carts and their ever-growing popularity among small farmers. In order to obtain a certain yield, the livestock have to be fed, which in turn leads to the process of fattening. Once fattened, the animals acquire a certain market value. Overall, therefore, one notes an improvement in stockbreeding management systems and the use of a non-pollutant form of energy. As for the environment, the negative effects are really very few with animal draught, and the increase in cultivated areas is never so large as to become a problem. Also, if properly managed, the fattening of livestock in pastures does not give rise to the sort of disastrous consequences that we have come to associate with pastoralism.

A two-day conference hosted jointly by the Belgian Royal Academy of Overseas Sciences and CTA, held in Brussels, Belgium, in June, studied the effects of intensifying agriculture on the environment. It was recognised that intensification cannot move forward without the peasant farmer any more than it can be introduced against his will. And the question was asked, is it not the role of the modern state to create incentives

and provide training for local managers so that they can take effective steps to deal with environmental problems?

Specific proposals suggested assigning equal importance to production and protection of land, improved property rights, enclosure of grazing land, but above all, certain broad aims which cannot be overlooked: the control of population growth and the creation of focal points of development in regions with ample ecological resources.

There seems little doubt that small irrigation projects are not only better suited to the users because they are easier to manage but they have less far-reaching damaging impact on the environment than large-scale projects. It must be added, though, that the latter have the greater potential to feed the ever-growing population.

Intensification is usually expensive and throughout the Third World, farmers constantly have to choose between finding the money to buy inputs or clearing more land on which to farm. Is the answer for governments to subsidise the inputs and so avoid more land clearance?

Intensification leads to more economical use of land and this economy is vital if the environment is to be safeguarded and restored. But there is no point in protecting the environment by means of intensive agricultural techniques if these same techniques lead in turn to other forms of environmental destruction. ○ M.P.



## The Courier - vital to an understanding of the world today

*I am always very interested in your articles, particularly those on the topics you deal with in depth in the dossier every issue, and I welcome your very pertinent choices here, as you always cover something which is currently of great importance—as a look at such subjects as structural adjustment and small and medium-sized businesses (both keeping the reader up to date with great problems of our times) proves.*

*So I really cannot lump The Courier together with all those publications which deserve to be thrown into the wastepaper basket, since I see it as a document which should be given pride of place in our libraries and, above all, made available to those who want to keep up with world events through, of course, relations between North (EEC) and South (ACP).*

*I should also like to say that The Courier has improved my knowledge of world geography. Thanks to you, I have found out about states such as Aruba and Vanuatu which, it has to be admitted, are rarely in the news. This prompts me to say that your journal is vital to anyone who wants to know more about the world of today and thereby gain a better understanding of the under-developed part of it. And The Courier is a good school, because most subjects are dealt with by specialists with considerable experience of development issues.*

*May Allah grant you long life and strength, if not inspiration, so that you can go on giving us ever better, ever more detailed articles.*

*In conclusion, I should be very happy if you would tell me whether your readers can submit articles—which of course would only bind them—or whether their only option is to react to what your experienced specialists have written.*

**Mamadou Seydou Diallo, Dakar, Senegal**

**Answer:** Readers may submit unpaid articles, which we reserve the right to publish and/or edit as well as comments on articles which have been published in The Courier.

## Bilingualism and plurilingualism in the ACP States

*I read keenly all the articles in the January-February 1990 dossier on national languages, currently the most up-to-date work on the subject, and I think you could improve on this by going one stage further and doing a second dossier on bilingualism and plurilingualism in the ACP States. National languages are never taught in isolation. They are always part of a bilingual or a plurilingual situation in which a European language (English, French, Portuguese or Spanish) is partly or wholly the language of teaching. So the use of national languages is really only one aspect of linguistic organisation for development. Bilingualism—one African and one European language—is the norm and the problem is to articulate and coordinate the two languages so they complement rather than compete with each other.*

*This very modern approach, which has been discussed in an as yet small number of publications, is difficult to put into practical application, because it is easier to deal with the national languages and the European languages of instruction*

*separately. But it is the only way which is fruitful, which reflects the real situation and which can help the harmonious development of the Third World countries by being rooted in their original culture and open to modern technology and universal humanism.*

**Joseph Poth, Gujan-Mestras, France**

## No more Polish in the Ruhr!

*An interesting, but also amusing, chart entitled "The Community language list" appears on page 49 of your July issue. Whilst one finds Frisian listed, and it is certainly true that Saterland Frisian and Danish are minority languages, there is also a wide range of other minority languages in Germany. What made us laugh in our office, however, was the suggestion that Polish was spoken in the Ruhr. One would need to search for a long time before finding someone who spoke that language there! On the other hand, at the corner of almost every street, one finds people speaking Spanish, Portuguese, Italian, Greek and, above all, Turkish. In fact, the chances of finding someone who speaks these languages are so high that they can no longer be classified as minority languages.*

**Wallner, Essen, Germany**

## Food – the big problem

*The dossier on cereals in No 114 gave me a better understanding of the ACPs, Africa, Senegal and, therefore, myself. You went straight to the point of the African food problem, which is no doubt behind national development as a whole.*

*What is more complex is the paradox which food brings in its wake. There may be an embarrassing surplus in one place and an alarming shortfall in another, with people dying of hunger, and all this on a planet where everyone is working towards the same goal—development. What bothers one feeds the other. Can the problem be solved by a simple transfer? No, it can't. It is far more complicated than that. If it weren't there would be no food wars, embargoes or the tied aid which is by no means a humanitarian way of helping the recipient country to regain the strength to fight for the progress of mankind.*

*What we have to do, logically, is count on ourselves. The potential is there, although it is not, of course, free of obstacles such as drought, desertification and rapid population growth. Did not Courier No 114 say that the nine countries of CILSS had harvested more than 9 million tonnes of cereals—more than the Sahel needed to avoid importing? Yet 1.5 million tonnes of imports had already been programmed...*

*It all boils down to how easy it is to consume imported goods and, above all, to the risk to Governments of sensing difficulties and reorienting their cereal policies. We are not suggesting economic self-sufficiency, but the courageous introduction of change at a bearable rate with a view to abandoning the imported cereals that cost us so much. The early stages are hard, but they pay off for all concerned. And the trade balance, employment and all the sectors of development will have a new lease of life, as the example of Nigeria shows.*

**Papa Diop, Guinguinéo, Senegal**

Giorgio MAGANZA — **La Convention de Lomé (The Lomé Convention)** — Volume 13 in the Law of the European Community series — Editions de l'Université de Bruxelles — 1990 — 528 pages + 406 pages of annexe.

Here is a reference book to fill the large gap in the range of works on Europe's development cooperation policy. It is one of the last volumes in a series commenting on the Treaty of Rome and the various texts applying it. It was written by an adviser in the legal service of the Council of the European Communities, who spent many years in the Directorate-General for External Relations in the Council Secretariat and saw both the emergence of many of the texts he deals with and the way most of the joint institutions he presents work. He thus has the experience to add assessments of political and institutional considerations to the historical outline and legal analysis. Comments on the relevant parts of the Treaty of Rome (the very important Articles 131-136 and even Article 136(a) on the association of Greenland and what is called the implementing agreement) are followed by a section covering association to cooperation (the Yaoundé Conventions, the Arusha Agreement, the Lagos Agreements and the Conventions of Lomé I and II). This is followed by a section on Lomé III and an addendum on Lomé IV. Interesting trends and innovations are mentioned at every stage and there are outlines of the negotiations, the transitional measures, the MPs' main written questions and the jurisprudence as well as a useful bibliography — which of course mentions *The Courier*.

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Jean-François DENIAU and Gérard DRUESNE — **Le Marché commun (The common market)** — "Que sais-je" collection — Presses Universitaires de France, 108 bvd Saint-Germain, 75005 Paris — 127 pages — 1989.

This, the 14th version, has been updated by the two authors, Gérard Druesne, President of the University of Nancy II, and Jean-François Deniau, former French Minister and

member of the Commission of the European Communities in charge of Third World development problems in the pre-Cheyssson era. Deniau, also a great traveller and sailor, has been writing novels for the past 10 years or so, bringing his talent into the public eye in 1977 with "L'Europe interdite" (Forbidden Europe), which was reviewed in *The Courier*. This is no doubt the most popular book on the common market, 164 000 copies having now been printed.

Taking the example of the Airbus and Ariane industrial achievements which the Member States involved have undertaken independent of Community machinery, the authors suggest a variable geometry Europe, on a temporary basis at least, of which "the shape could be altered according to the scheme in hand, as the partners would not always necessarily be the same". The coming summits and the future of the Economic and Monetary Union will show whether such ideas should be generalised to release blockages or only used in particular industrial cases. As the book was written before the recent upheavals in Eastern Europe, it does not speculate on their consequences for the EEC, but it is an excellent outline of economic history and, as such, of particular interest to students. ○

Alain LACROIX

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**The Uruguay Round and Europe 1992: Implications for future EC/ACP cooperation**, ed. by Christopher STEVENS and Doeke C. FABER. — Maastricht: European Centre for Development Policy Management (ECDPM), 1990 — (ECDPM Occasional Paper). ISBN: 90-72908-03-1. Available in English and French (April 1990).

This book is the result of a research study undertaken by ECDPM, into the implications for developing countries, especially the ACP states, of the GATT Uruguay Round and the completion of the EC internal market — Europe 1992. It concerns itself with the question: how will the results of these negotiations impact upon the developing world, and more particularly, what are the potential negative effects of these global welfare increasing measures on vulnerable countries.

It informs the countries concerned about particular issues or topics that need focal attention and it identifies possible topics for further study. It makes suggestions as to how resources available under the Lomé IV Convention could best be used by ACP states to overcome some of the hurdles that the GATT negotiations and the progress towards a unified Europe may leave on the road to development.

The study treats four topics, each of major concern to the developing countries; temperate agricultural products, tropical products, textiles and clothing, and trade in services.

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Nathan ROSENBERG and L.E. BIRDZELL — **Comment l'Occident s'est enrichi (How the West got rich)** — Librairie Arthème Fayard pour la traduction française — 382 pages — Bfrs 897 — 1989.

The authors—one a teacher of political economy at the University of Stanford and the other a lawyer—say that, until the end of the Middle Ages, the West was poor and lagging behind the world of Islam and, of course, China in its economic, commercial and technological organisation.

With the Renaissance, however, came gradual metamorphosis, leading to the profound transformations in the human condition which began in the 19th century. What then happened to make Western Europe, followed in turn by North America and Japan, leave the penury of traditional society behind when most of the rest of the world were, and in some cases still are, in the grips of a seemingly primaevial malediction of underdevelopment?

This, then, amounts to the combined (and gradual) application of four cultural and technological revolutions in 500 years — intellectual freedom, freedom of scientific research, freedom of trade and freedom of prices. However, this apotheosis of enterprise and the spirit of innovation should not be an apology for unbridled capitalism, because we have long been aware that "in the matter of strength and weakness, freedom oppresses and regulations make

(continued on inside back cover)

# THE CONVENTION AT WORK

## Gulf crisis casts a shadow over Joint Assembly

The ACP-EEC Joint Assembly, held in Luxembourg in the last week of September, was overshadowed by the likely effect of the Gulf crisis on the already fragile economies of many ACP countries. Rising oil prices, with the possibility of worse to come, featured prominently in the speeches of both ACP and European Community participants and there were a number of calls for urgent action to avert economic catastrophe in the oil-importing ACP states.

The problem was raised at the outset, by Mr Baron Crespo, President of the European Parliament, during the formal inaugural session of the Assembly. Speaking in the presence of the Grand-Duke and Duchess of Luxembourg, Mr Baron Crespo condemned the invasion of Kuwait and insisted that Iraq must "comply unconditionally" with all United Nations resolutions. He also spoke of the high price which the international community would have to pay for Iraq's arrogance; a price which for the ACP and other developing countries, would be "extortionate".

As regards existing economic difficulties, Mr Baron Crespo noted that the number of countries classified as "least developed" had risen from 31 to 42 since 1981. All but ten of these were members of the ACP group.

Despite this gloomy situation, he nevertheless offered a hopeful prognosis. He mentioned the "spectacular developments that are transforming the political scenario in Southern Africa" and spoke of changing concepts of government, "with popular participation replacing control from above". In the field of economic development, he noted that "projects are more and more being built on active involvement of ordinary men and women in conception and planning, as well as in implementation".

Mr Baron Crespo acknowledged the fears expressed by ACP states that they might be "marginalised in the enthusiasm for enhanced economic and political links with Central and Eastern Europe". Referring to the role of his own institution as the "conscience of the European Community" the President stressed that the European Parliament "must ensure a fair balance is

maintained in relations between Eastern Europe and the South".

Mr Baron Crespo's sentiments regarding the economic impact of the Gulf crisis were echoed by several other speakers at the inaugural session. Luxembourg's Secretary of State for Foreign Affairs, Mr Georges Wohlfart, referred to the serious impact of oil price rises on developing country economies and stressed that now, as never before, cooperation and solidarity were key values in determining the action to be taken.

### Stark realities

Mr Mamadou Diop (Senegal), the Assembly's Co-President also underlined the stark realities facing most ACP countries. He acknowledged the continuing economic and social deterioration which had occurred despite the combined efforts of the ACP states themselves and of the Community. Mr Diop insisted that it was illusory to think of improving the situation without tackling the debt problem, and this in turn would require the introduction of "new methods of cooperation".

Mr Diop also pointed out the mistake in seeking to determine which of the two elements — poor economic results or poor infrastructure — is primarily responsible for the present difficulties faced by ACP states. The reality is that both impinge adversely on the countries in question.

Mr Leo Tindemans, the former Belgian Prime Minister who is the other Co-President of the Assembly, took the opportunity of his address to put forward a series of ideas for stimulating

### Also in the yellow pages

#### The Convention at work

##### V. EDF

##### VI. — Emergency aid

- Visit of Presidents Museveni (Uganda) and René (Seychelles)

##### VII. General Information

- The South Commission
- Paris conference on LDCs
- GSP to be improved, but not before 1992

##### IX. Europe

- German unification
- Political cooperation
- Focus on Eastern Europe

development. These ideas, which took the form of ten separate points, included:

- a development policy based on regions or sub-regions, and involving a strengthening of regional organisations;
- the write-off of all debt owed by African states to the European Community;
- the establishment of an agency which, unlike the World Bank or the International Monetary Fund, is capable of providing assistance before a crisis blows up;
- the creation of an ACP-EEC Trade Centre, modelled on the existing CDI and CTA, which would service the links between ACP and Community enterprises and other bodies, and would manage directly, a range of activities in the field of cooperation, presently delegated to the Commission.

Mr Tindemans' other proposals dealt with education, investment from overseas, transport policy, the rehabilitation



*Assembly Co-President Mamadou Diop addressing the Joint Assembly during the inaugural session*

of agriculture, public health and what he described as "moral self-defence".

As regards the last-mentioned, Mr Tindemans envisaged the possibility that an African movement might emerge "for the purpose of cultivating those values which Africa needs for its prestige, reputation, blossoming and development". He continued, "could not those Africans who are the most far-sighted and pioneering, launch a popular movement to fight for more honesty in society and more justice in the face, not only of misery, but also of abuse and extortion. The whole world would admire the courage of these Africans and would, I am convinced, help in the triumph of their ideas. Young people would discover in this, a stimulus and a source of justifiable pride".

It appears on this point, that Mr Tindemans was "floating a balloon" rather than making a concrete policy proposal. Quizzed later in the week about what form an African movement for moral self-defence might take, he was understandably reluctant to commit himself to a specific model, in keeping with his view that such a movement would have to spring from Africa itself. There is little doubt, however, that the motives underpinning Mr Tindemans' "cri de cœur" found an echo in the hearts of many other members of the Assembly.

The inaugural session was also addressed by the Mayor of Luxembourg, Mrs Lydie Wurth-Polfer, who warmly welcomed the assembled representatives to her city.

During the course of the week, the Joint Assembly discussed a variety of Reports and resolutions on issues related to development. The main debate was on the General Report drawn up by Mr Hartmut Perschau MEP on "the priorities to be observed in implementing Lomé IV in order to improve the economic and social situation in the ACP states".

### Perschau Report

Introducing his Report, which included a comprehensive motion for a resolution, Mr Perschau gave a critical analysis of the previous five years. He pointed out that despite the Lomé Conventions, there had been no improvement in the economic situation of most ACP countries. The main objectives of the new Convention, he stated, must be to fight social inequalities, to enable people to feed themselves and to allow

### Perschau Resolution (\*) – Main Points

The Joint Assembly called for:

- new resources to be added to the Lomé Convention to help cushion the impact of increased oil prices on ACP economies;
- a closer link to be created between development policy and respect for fundamental rights;
- the Community to encourage reforms designed to improve and stabilise the democratic process in ACP countries;
- priority support to be given to medical research and to the production of medicines and vaccines in the ACP states;
- greater account to be taken of the role of women in development and for this to be reflected in the actual implementation of development policies;
- protection of the environment and natural resources to be made an integral part of development cooperation with strategies drawn up to provide effective decision-making and operational machinery;
- coherent strategies to be devised to strengthen rural structures and improve socio-economic conditions for farmers;
- the Community to fight hunger by pursuing an agricultural trade policy on the world market that accords with the needs of developing countries;
- the Commission to avoid conversion of project aid into import subsidies;
- the second financial section of Lomé IV, linked to structural adjustment programmes to be used to promote health and education in all the ACP countries that so request;
- the cancellation both of the debts owed to the Community by the ACP states and of outstanding STABEX and SYSMIN repayments;
- the introduction of a Community policy on debts contracted bilaterally with EC Member States, aimed at their total cancellation, or their conversion into development cooperation projects;
- the EC and its Member States to counteract the attractions of their own money markets by, for instance, concluding double taxation conventions with ACP states;
- further commodity agreements based, not on price arrangements but on compensating mechanisms such as quantitative restrictions or buffer stocks, and involving as parties, the principal producing and consumer countries for each commodity in question;
- the necessary measures to enable ACP states to take over at least part of the responsibility for processing, marketing and distribution of the commodities they produce;
- the Community and the ACP states to make better use of commercial policy instruments and to give absolute priority to expansion of trade and the services sector;
- the Community to take account of and to safeguard the legitimate interests of the ACP states at the current GATT Uruguay Round of multilateral trade negotiations.
- the Community to ensure that isolated forms of protectionism on individual markets are not transferred to the external frontiers of the single market;
- the Commission and ACP governments to give proper consideration in the current planning phase, to regional projects.

(\*) Resolution on the priorities to be observed in implementing Lomé IV in order to improve the economic and social situation in the ACP States, adopted by the ACP-EEC Joint Assembly on 26 September 1990.

them to live their lives in "human dignity". He drew particular attention to demographic problems, pointing out that 380 million new jobs would need to be created in sub-Saharan Africa over the next 30 years, simply to keep pace with the population growth. Mr Perschau insisted that this issue could not properly be tackled unless the role of women was recognised. Demographic trends were favourably influenced by improved education but it was clear

from literacy statistics that women were being discriminated against, in terms of access to education.

Speaking later in the debate, Vice-President Marin, the Commissioner for Development, took up the theme of human rights, which is given some prominence in the Perschau Report. He stressed the importance of the link between human rights and development insisting that parallel progress was needed in the two areas.





Hartmut Perschau MEP

He continued, "it goes without saying that whenever we come across flagrant violations of human rights, we must take these into account—not necessarily in a dramatic way, but in a way which, above all, is effective. We have done this in the past and we will continue to do it."

In a similar vein, he stated, "our absolute priority is 'economic democratisation', allowing people at all times to have better access to development. ACPs must have the freedom to choose democratic forms which are most suited to their own structures and societies, subject of course, to the requirement that such claims are based on a growing consensus among the populations in question". The theme of "people centred" development was reiterated by numerous other contributors throughout the week.

Earlier in his speech, Mr Marin had acknowledged that Lomé IV might not be the best agreement imaginable. He stressed, however, that it was the best available under the circumstances, offering significant improvements in a number of areas as compared with Lomé III. He also said that the Commission would be looking at ways of responding to the changed circumstances caused by the Gulf crisis.

Other speakers in the debate tended to focus on financial questions and, in particular, the problem of indebtedness. The representative of Kenya argued that indebtedness could wipe out the positive effects to be expected from Lomé IV if no measures were taken such as the cancellation by the Community of all the ACP countries' debts. Mrs Napolitano MEP doubted whether the Community countries were yet ready to "cross the Rubicon" of debt write-off. Several representatives

regarded the overall financial commitment made by the Community under Lomé IV, as inadequate and the issue of disbursing funds was also raised, with the speaker from Suriname pointing out the low level of payments made so far under Lomé III.

In a comprehensive speech, the president-in-Office of the Council, Mr Vitellone recognised that there had been a slow-down in the rate of payments. He promised that the ACP-EEC Council would embark on a joint study with the Commission to increase the effectiveness of financial and technical cooperation. He also spoke of decisions taken recently on the environment and development and on tropical forests.

Although the broad sweep of the Perschau Report was largely accepted, over 100 amendments were tabled by individual members and groups. Many of these were accepted by the Rapporteur and, after a lengthy session of voting later in the week, the Resolution was adopted overwhelmingly by the Joint Assembly.

### Gulf crisis

Following the debate on Mr Perschau's general report, the Assembly went on to discuss the consequences of the Gulf crisis on ACP-EEC cooperation. On behalf of the ACP, the representative of Uganda reiterated his group's condemnation of the Iraqi action. He also pointed out that the crisis was a catastrophe for the ACP countries and appealed to economically stronger countries, particularly the Community, to show solidarity. On the EEC side, Mr Henri Saby MEP insisted that crisis situations called for emergency solutions and he suggested a series of urgent measures to deal with the problem. The President of the Committee of ACP Ambassadors, Mr Kane (Senegal), echoed the views of previous speakers adding that propaganda to the effect that the crisis was a conflict between North and South must be refuted.

The Assembly later unanimously adopted an emergency resolution, requesting all signatories to the Lomé Convention to adhere strictly to UN resolutions on the Gulf crisis and calling for action from the Community including the setting up of a Special Oil Facility for the oil-importing ACPs and for the cancellation of debt. Convention signatories were also urged to accelerate their ratification procedures so as to allow speedy implementation of the measures and programmes envisaged under Lomé IV.

### Women in development

The Wednesday morning was devoted to a hearing on the role of women in development. The principal speaker for the occasion was Mrs Maryam Babangida, First Lady of Nigeria, whose presentation concentrated on the multi-dimensional role of women in national development in sub-Saharan Africa.

Focusing on the situation in Nigeria, Mrs Babangida described the "Better Life Programme for the Rural Woman" which was presently being implemented. This programme, she stated, was designed to achieve the following objectives:

- (a) To stimulate and motivate women in rural areas towards achieving a better standard of living, as well as to sensitise the general populace to the plight of rural women.
- (b) To educate women about simple hygiene, family planning and the importance of child care, and to increase literacy.
- (c) To mobilise women for concrete activities towards achieving specific objectives, including seeking leadership roles in all spheres of national life.
- (d) To bring women together and closer for a better understanding and resolution of their problems through collective action.
- (e) To raise the social consciousness of women about their rights, as well as social, political and economic responsibilities.
- (f) To encourage recreation.

Mrs Babangida went on to explain the measures which had been taken to implement these objectives. The organisational structure is based on a series of committees at different levels, reflecting Nigeria's decentralised federal structure.



Mrs Maryam Babangida, First Lady of Nigeria, addresses the Assembly



*Mr Sisa Ngombane of the ANC speaking on South Africa*

The unusual element is that the committee coordinators are normally the wives of the State Governor or local government chairmen (at the lower level). Mrs Babangida herself chairs the National Organising Committee. As the First Lady observed, "this is a total departure from the usual method of merely instituting a women's bureau or committee, which forms part and parcel of the bureaucratic apparatus of a ministry. It is designed to ensure a direct approach between leadership and the grassroots". Clearly, such a structure presupposes a predominantly (if not exclusively) male political leadership but it nevertheless points to an imaginative effort, in the Nigerian context, to give greater priority to women's issues.

### Women mobilised

Within a period of three years, Mrs Babangida reported that the programme had not only been formally established and accepted in all states, but also that it had mobilised and motivated women in a number of ways. Successful trade fairs had raised the profile of farm produce, and arts and crafts, while there was increased awareness of and participation in primary health care programmes. Adult literacy programmes had been intensified, women had acquired new skills in agriculture and the number of women's cooperative societies had risen to 3 000 as against 450 three years previously.

Mrs. Babangida concluded her presentation with the "old but relevant adage that a person does not walk very far or fast on one leg". She continued: "You can easily understand the potent power of two legs—that of men and women working together in the interest of national development, international peace and security and for the benefit of humanity as a whole".

The hearing was also addressed by a number of other experts in the field. Mrs Rose Waruhiu, a Member of the Kenyan Parliament and former Joint Assembly rapporteur on the role of women in development emphasised the importance of education as the key to the future of women. It was necessary, she said, to fight the unequal treatment which characterised the schooling of boys and girls. Mrs Waruhiu also advocated special measures for women to be

attached to all development programmes.

Mrs Mieke Van der Veken, President of "Women in Development—Europe" outlined the objectives of her association, which included lobbying on women's issues at the European institutions and other international organisations. She insisted that women must find their place in public administrations and non-governmental organisations—both traditionally male bastions.

Mrs Mary Tadesse, of the UN Economic Commission for Africa echoed the plea for equal treatment in education and also advocated increased representation for women in the higher echelons of the police and military establishments.

Ms. Christine Crawley, who chairs the European Parliament's Committee on Women's Rights regretted that only 30% of Lomé programmes made explicit reference to the needs of women. She suggested that women were "invisible" both in development programmes and in the statistics.

Mr Peter Pooley from the European Commission took issue with some of the points raised by the previous two speakers. He stated that the "checklist approach to programming" should be avoided since it could lead to the marginalisation of women. Women's concerns should, he believed, be an integral part of programming to be tackled by all officials working in the area, and not merely by a specially designated team.

### Southern Africa

On the Thursday, the Joint Assembly held a debate on the situation in Southern Africa. The majority of representatives favoured a continuation of sanctions until such time as the apartheid system was fully dismantled. Concern was expressed about the recent violence in South Africa which threatened to undermine the reform process. Mr Michael McGowan MEP also insisted that it would be premature for the European Community to establish a fully-fledged delegation in South Africa implying diplomatic recognition by the Community of the *status quo* in that country. At the invitation of the Assembly, Mr Sisa Ngombane from the ANC delivered a short address.

Further debates were held on the situation of refugees in Senegal and Mauritania, the indebtedness of least developed countries and on ACP interests in the Uruguay Round of trade liberalisation talks. As regards the dispute between Senegal and Mauritania, it was intimated that Mr Tindemans had agreed to undertake the task of mediating between the two countries. In the discussion on ACP indebtedness, there were wide-ranging calls for the cancellation of existing debts.

Two working documents dealing with intra-ACP trade and transport in the context of ACP-EEC relations were also presented by their respective rapporteurs (Dr E. Simmons of Barbados and the Hon John Kyalo of Kenya). Notable in the discussion on the latter, were calls from the ACP side to adopt measures which would facilitate the development of local shipping concerns, particularly in West Africa.

### Sugar

Mr Murlidas Dulloo, the Minister of Agriculture of Mauritius, who is the ACP spokesman on sugar, delivered a statement in which he expressed concern both about developments under the Common Agricultural Policy and about the outcome of the Uruguay Round which might damage the market for ACP sugar in the Community. He reminded his listeners of the Community's long-standing commitment to "have at heart the interests of countries whose economies depend to a considerable extent on the export of basic commodities and, notably, sugar". He urged the Assembly to support measures proposed by the Commission aimed at alleviating some of the difficulties presently being experienced by the ACP sugar producers.

Towards the end of the session, harmony was seriously threatened when a procedural wrangle developed over a vote on racism and xenophobia. The sometimes heated discussion on points of order lasted 90 minutes until good sense prevailed. The vote was duly retaken and, as had been clear from the outset, both the ACP and EEC groups supported the resolution, the former unanimously and the latter by a large majority.

Despite this, the Joint Assembly was able, over a period of five working days, to reach a consensus on most of the issues it discussed, covering a great deal of ground in the process. ◊

Simon HORNER

## EDF

Following the favourable opinion delivered by the European Development Fund Committee, the Commission has decided that the projects listed below should be financed.

### Ethiopia

#### Development of external trade

Sixth EDF

Grant: ECU 1 500 000

Ethiopia, with large trade deficits and an increasingly heavy debt burden, is very short of foreign exchange — the result of recent drought and the collapse of coffee prices since May 1989.

This external trade development scheme is designed to back up the drive which the authorities and the private sector are making to improve the country's trade record and diversify the structure of exports.

It will have four main components—technical assistance, marketing campaigns, training and equipment—and will take three years to complete.

### New Caledonia

#### Study of nickel production

Sixth EDF

Special loan: ECU 800 000

This is partial financing to update a very thorough feasibility study of a nickel mining and metallurgy project in the northern part of the territory (Province Nord). The nickel market is in a very good state at the moment and this has mopped up the debts of the bad years and already generated investments, modernisation and the extension of production capacities.

### Mauritius

#### Stone removal

Sixth EDF

Grant: ECU 2 000 000

Special loan: ECU 1 000 000

The idea here is to boost the productivity of smallholdings by removing the worst stones from the soil. The island's volcanic origins have given it earth which is mixed with pieces of rock of varying size, making it difficult to work the land efficiently.

The project will supply extra equipment (tracked vehicles and various other plant) to the Sugar Planters'

Mechanical Pool Corporation (SPMPC), a semi-public organisation which helps smallholders remove stones and prepare their land.

It will therefore:

- improve the availability and standard of the agricultural land;
- facilitate the agricultural mechanisation which is vital at a time of increasing labour shortage;
- make for optimum utilisation of the natural resources available (crushing the stones for the construction industry).

### Fiji

#### Development of investments and exports

Fifth EDF

Grant: ECU 5 200 000

Special loan: ECU 2 000 000

The main aim here is to make Fiji's investment and export development more dynamic by setting up a Free Zone near Suva, the capital. Underlying this is a desire to broaden the country's economic base by improving the manufacturing sector and creating employment so that there is less dependency on sugar and the tourist trade.

The project, which involves buying and developing 32.3 ha of land, putting up 10 000 m<sup>2</sup> of industrial buildings, providing management training, and running investment and export promotion campaigns as well as productivity and quality control advisory schemes, will take three years.

#### Social infrastructure

Fifth EDF

Grant: ECU 2 350 000

This is a project to encourage social infrastructure in education (rural schools and teachers' accommodation) and transport (rural bridges) and make an important contribution to promoting the development potential of rural Fiji.

Help will be given to 74 rural schools for the building of 39 classrooms and 45 units of housing for teachers. The rural schools built under this scheme should be able to cater for 1400 new pupils.

The 11 bridges to be built in rural areas will replace ones which are old or broken and will facilitate travel for an estimated rural population of 55 000.

### Niger and Mali

#### Tillabéri-Gao road

Sixth EDF

Grant: ECU 5 260 000

This follows on from the EEC financing of a feasibility study of this road and preliminary and detailed studies of the central section. The idea now is to run detailed technical studies of the stretches at either end of the Tillabéri (Niger)-Gao (Mali) trunk road and carry out certain urgent tasks to ensure rapid improvements to what are extremely difficult traffic conditions.

The Tillabéri-Gao stretch (330 km) is the only non-rehabilitated part of the regional Niamey-Gao-Bamako highway. The future improvements will open up eastern Mali by providing for access to ports on the Gulf of Guinea (Lomé, Cotonou and Lagos). They will also facilitate trade with Nigeria and contribute to better development of the agricultural potential of the Niger valley.

### Senegal

#### Settling returnees

Sixth EDF

Grant: ECU 2 100 000

This is support for Senegal's drive to resettle the Senegalese nationals recently expelled from Mauritania.

It follows on from a preparatory phase in mid-December 1989 (resources of Article 204 of Lomé III) when a full-scale evaluation of the size and features of this project was made and some 200 repatriated heads of families were economically resettled.

The scheme, which will focus on the St Louis region, will try to resettle 2000 repatriated heads of families, develop existing businesses (which in turn will hire the returnees) and help returnees, particularly those who already ran businesses in Mauritania, to set up small and medium-sized firms.

### All ACP and OCT

#### Short training sessions

Sixth EDF

Grant: ECU 1 200 000

This programme covers the financing in 1990-91 of:

- short information sessions for ACP students and cadres training in Europe;

— advanced training sessions for ACP cadres in an ACP country or, preferably, in Europe. ○

## EMERGENCY AID

**ECU 3 million in emergency aid under Article 203 of the Lomé Convention towards the aid programmes of humanitarian organisations helping the victims of conflicts and malnutrition in Mozambique.**

**United Nations Children's Fund (UNICEF): ECU 1 400 000**

Purchase through UNIPAC, transport to Mozambique and internal transport of essential medicines, medical, X-ray and surgical equipment, and products for blood banks, and their distribution to hospitals, mainly in the provincial capitals (Maputo, Niassa, C. Delgado, Nampuaia, Tete, Zambezia, Manica, Sofala, L'Bane, Gaza).

**Departamento previsão e combate calamidades naturais: ECU 1 000 000**

Internal transport of some 30 000 tonnes of Community food aid (cereals) to the most seriously affected regions.

**Reserve: ECU 600 000**

Intended for the rapid financing of other operations likely to be proposed by other humanitarian organisations, including financing the internal transport of other Community food aid.

### **Gulf crisis: Abel Matutes gives an update of EC emergency aid in New York**

An update of EC emergency and humanitarian aid for the population affected by the Gulf crisis was made by Mr Abel Matutes in New York, within the framework of the United Nations General Assembly. Here are the outlines:

— Humanitarian assistance by the international community and by countries for repatriation is estimated at over US \$ 240 million.

— In total, the combined effort of the EC and its Member States amounts to ECU 80.2 million (US \$ 108 m) as of 25 September 1990.

## CTA Director

The ACP-EEC Council of Ministers has reappointed Mr Daniel Assoumou Mba as Director of CTA (Technical Centre for Agricultural and Rural Cooperation) for a further five-year term. Mr Mba is a Cameroonian. He became Director of the CTA in June 1983.

— Within this total, from 22 August to date, the EC as such has given ECU 58.5 million (US \$ 78 m) in humanitarian assistance: equipment for transit camps; medical teams; food for transit camps and for repatriates in Egypt; road, sea and air transport for Egyptian and Asian repatriates.

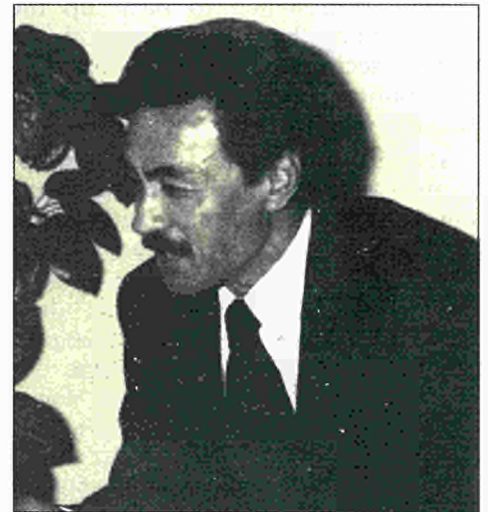
— So far, this assistance has enabled the EC, inter alia, to:

- feed 150 000 persons in Jordan over a period of 4 months;
- feed 400 000 repatriates in Egypt over a period of 4 months;
- transport 38 000 workers back to Egypt by air and sea;
- transport 53 000 workers back to Bangladesh, India, Pakistan, the Philippines and Sri Lanka by air;
- transport Pakistani workers from Kuwait to Amman by road.

— Bilateral assistance granted by EC Member States totals to date ECU 21.7 million (US \$ 30 m) and has been used for air transport, medical teams, medical and other supplies for transit camps. ○

## ACP EMBASSIES

**Western Samoa's** newly appointed ambassador, Afamasaga F. Toleafoa, has presented his credentials to the Presidents of the Council of the European Communities and of the Commission. Aged 45, Mr Toleafoa holds a degree in economics from Otago University, in New Zealand. Prior to his appointment, he was Western Samoa's Consul-General in Auckland, New Zealand, and had worked with two regional organisations, the South Pacific Commission and the South Pacific Bureau for Economic Cooperation (SPEC), now renamed the Forum Secretariat. He is married with three children. ○



Afamasaga F. Toleafoa

## VISITS

### **President Museveni comes to Brussels**

Yoweri Museveni, President of Uganda and President-in-Office of the OAU (since July) stopped off in Brussels on his way from New York to Copenhagen. On 8 October, he gave a press conference almost entirely devoted to the recent events in neighbouring Rwanda. His own position, he said, was clear. He had no idea what was going on and he had ordered the frontiers with Rwanda to be closed as soon as he heard that trouble, fomented by Banyarwanda refugees who had been in Uganda for years, had broken out. The refugee situation (a subject covered by the dossier in No 121 of *The Courier* in May-June 1990), he maintained, was

dire and had to be tackled globally. "Are the refugees abroad of their own free will?", he wondered, rejecting the idea of any link between the exercise of a human right such as going home to one's own country and the fact of owning land and pointing out that the Ugandans who had taken refuge abroad during the civil war had now come home, because the Government had managed to bring in the requisite "domestic harmony" measures. Asked whether the OAU could be expected to do anything about the refugees, President Museveni said he was "embarrassed" about this, because his own country was involved, although something of the

kind might be done later on — with the OAU acting more through the intermediary of its member countries.  
○ M.H.B.

### Seychelles President at the Commission

France-Albert René, President of the Seychelles, was received by Manuel Marin, Vice-President of the Commission, on 20 September. President René was accompanied by Mrs De St Jorre, the Minister of Planning and Foreign Affairs, and Mr d'Offay, the Seychelles Ambassador to Paris.

The talks concentrated on EEC-Seychelles cooperation under Lomé III, Community support guidelines under Lomé IV and regional cooperation, a substantial form of aid for these islands. The Gulf crisis and the Seychelles economy were also discussed.

Extracts from the statement which the new President of the OAU made at the XXVth ordinary session of the Conference of Heads of State and Government (Addis Ababa, 9 July 1990).

The people of Africa have a right to democracy... All Governments must derive their authority from the people... There can be no development without responsibility on the part of the people in power... The Africans themselves have to decide what form this democracy is to take... There must be no violation of human rights... It is in our own interest to (respect) human rights and seek new ways of reducing internal conflict and safeguarding the rights of these displaced persons.

## GENERAL INFORMATION

### SOUTH COMMISSION

#### Julius Nyerere presents the conclusions

Dr Julius Nyerere stepped down as President of Tanzania in 1985 while continuing as party leader. He recently gave up this job to devote his attentions to the problems of economic under-development in Africa. For some years now, he has been chairman of the South Commission — a task force of leading figures working on the main causes of under-development in the countries of the continent. This body recently completed its discussions and brought out a report. It is the substance of this report which Dr Nyerere, who led the South Commission team, has just presented in Brussels, in various other major capital cities of Europe and in the USA. The South Commission outlined what the development targets should be and insisted that the ultimate aim of economic progress was the wellbeing of the people — which, Nyerere maintains, is far more important than any other criterion, such as "efficiency". The Commission suggests that the countries of the South exploit the potential of their human and natural resources. It recommends close cooperation between the countries of the South as the only way of achieving the national self sufficiency which is the forerunner of collective self sufficiency. Dr Nyerere told a press conference that technical and scientific training was one of the keys to the success of the process he had described. It was wrong to have everyone trained in the North, he thought, and training links should be forged between the countries of the South. Cooperation was still far more a North-South rather than a South-South affair, he said, and the countries of the South were spending billions of dollars getting their cadres trained in the North.

He went on to stress the seriousness of financial transfers from countries in the South to developed countries in the North and suggested that one solution might be simply to write off the debt or to reduce the interest rate



President René (left) being welcomed to the Commission by Vice-President Marin

significantly in order to lighten repayments.

During his stay in Brussels, Dr Nyerere was received by EEC Commission President Jacques Delors. He met senior Commission officials for talks on such matters as ACP-EEC

cooperation, the Gulf crisis and its effects on the South, specific Tanzanian problems and the South Commission report — which, he told the press, “the Commission of the European Communities will be having a serious look at”. ○

## The Paris conference on the least-developed countries

After what is acknowledged as a lost decade for development, the 41 least developed countries (LDCs)—the world's poorest—expressed concern at talks in Paris (4-12 September) that the next decade would be no better. They fear they will be the first victims of rising oil prices prompted by the Gulf crisis, on top of concerns that vital development funds are being diverted by Eastern European moves towards a market economy. In 1981, at the first of these UN-organised conferences, the then 31 least-developed nations had been promised by the industrialised countries, 0.15% of their GNP in official development aid. Ten years later, with 41 LDCs, including 33 ACP states, only Scandinavia, including Denmark, and the Netherlands will reach 0.2% (more than 0.4% for Norway), with France, Italy, and Canada at 0.15%, the USA at 0.04% and Japan at 0.07%.

Are the least-developed countries (LDCs) now so dependent on aid that the entire two-week conference revolved around the figure of 0.15%? Yes, if one considers that, in addition to the classic definition (income per capita equals ECU 150), the LDCs are on the fringe of world trade, often have only one exportable farm product, have a literacy rate of only 20% among their adult population, have an industrial sector that contributes less than 10% of their combined GNP, and have three-quarters of their population living in rural areas, excluded, as they are, from the influences of technological progress.

The main conference innovation was to launch stricter controls on government development aid, with agreement (albeit with conditions) that developing states must adopt pluralist democracies and respect human rights. Certain countries, not least the USA and Japan, will not be more specific until the LDCs promise economic and political reforms. The developing states were promised aid

growth (0.15% minimum for all states) and Soviet support for multilateral aid, regardless of the Gulf crisis outcome. Despite the insistence of the LDCs, there was no significant progress on debt, apart from a Dutch proposal to cancel all the non-concessional bilateral debt of the poor countries. More coherence was urged at regional level for structural adjustment problems which, by their depressive impact and their socio-political cost, have a negative effect on the balances they are meant to correct.

Regional conflicts and wars, encouraged by foreign powers, were also denounced as obstacles to development. While all delegates were worried about military escalation in the Gulf, Afghan President, Mr Najibullah, pointed out that the sum needed to double aid to the poor countries amounted to a mere 10% of the military expenses of industrialised countries. ○

### A better GSP – but not until 1992

The Commission is waiting for the conclusion of the Uruguay Round to review the generalised system of preferences for the coming decade. The commissioners agreed to the principle of a reform of the present system (set up to promote economic and industrial development in the developing world 20 years ago) on 4 July. The projected reform involves revising the rules on production quotas and should stabilise the markets with three-year agreements in place of the present annual arrangements. The single market will also bring important economic changes in its wake and the reform of the GSP will have to wait until 1992 to take effect in Europe's new economic context. ○

## EUROPE

### German unification

The remarkable speed of the changes taking place in Eastern Europe has taken most commentators by surprise. The burgeoning of democracy movements, the rapid collapse of dominant, single party structures and the largely peaceful transition to pluralist political systems have all taken place with astonishing speed. Nowhere is this more evident than in Eastern Germany. Less than a year ago, that most visible symbol of the cold war, the Berlin Wall, was still standing. On the evening of 9 November 1989, the East German authorities opened it, unable any longer to resist the tide of democracy in their own country. With such a dramatic step, it was inevitable that the issue of German unification would move higher on the agenda, but few would have predicted that the process could be completed in less than 11 months.

The timetable for German unification was compressed by a number of factors. In the first place, the Communist regime of the GDR survived the breach in the Wall by only a matter of weeks. The power vacuum created meant that early elections were essential and the first (and last) free election in East Germany was hastily arranged. This was contested by sister parties of all the main West German political groupings as well as by the successors to the former ruling party, the PDS. Victory went to the Christian Democrats, the allies of Chancellor Kohl, and a clear majority of East Germans voted for parties committed to unification.

The momentum grew as it became increasingly clear that the GDR's economy was facing a severe crisis and even possible collapse. Currency union, involving the introduction of the Deutschmark in place of the old Ostmark, was hurried through and the logic of speedy integration became irrefutable.

The main forum for the discussion of the unification issue was the so-called “Two plus Four” talks involving the two German states and the Allied Powers (United Kingdom, France, United States and the Soviet Union) whose military administration continued to operate in Berlin.



The fact that the talks were concluded so speedily and successfully, provided further evidence of the newly emerging world order involving cooperation rather than confrontation between the two superpowers.

The final step in the process—formal unification—took place on 3 October 1990, amid scenes of celebration at the Brandenburg Gate in Berlin. The legal form chosen for uniting the two states is Article 23 of the West German Basic Law which allows for accession by the Länder of Eastern Germany to the Federal Republic. From an international legal perspective, this means that the GDR no longer exists while the

FRG continues as a legal entity, with an expanded territory and population.

This outcome has important implications for the European Community in that, at the moment of unification, the Community also grew by 108 000 square kilometres and acquired 16 million new inhabitants. No act of accession or change in the Treaties was required.

In consequence, Community law applies automatically and in its entirety to the whole of Germany, although a package of measures has been put to the Council to allow for temporary derogations in some areas. This is necessary pending economic and other adjustments in the

former East German territory. Given the speed at which unification has taken place, the Commission has also obtained delegated powers to implement provisional measures of the kind envisaged in the package. These will be valid until 31 December 1990, by which time the legal steps necessary for the adoption of the measures by the Council, including consultation of the European Parliament, should have been completed.

A number of provisional measures relating to the operation of the Common Agricultural Policy, and providing for certain exemptions to Community law in other areas (technical rules, the transport sector, environmental norms and customs duties) were adopted by the Commission on 4 October 1990.

As regards the Lomé Convention, no temporary derogations have been proposed. Accordingly, both the Convention itself, and all related Community legislation now apply to the whole of Germany. In practical terms, this means that ACP exports to the area of the former GDR will be accounted for in Lomé quotas or reference quantities. Conversely, Article 174(2) of the Convention, on most favoured nation treatment and non-discrimination, now applies to ACP imports from the region. Additionally, firms established and goods produced in the eastern part of Germany are eligible for EDF tenders.

The future of other treaties entered into by the German Democratic Republic will depend on the form and content of such arrangements. Those which rely specifically on the existence of the GDR as a distinct legal person in the international sphere, automatically fall. Others will continue to be applied by the Federal Republic and the Community in their capacity as "successors" to the GDR under international law, insofar as these remain compatible with national and Community law. Incompatible agreements will be subject to renegotiation.

Bearing in mind the comprehensive nature of the Lomé trade regime, trade agreements concluded between the former GDR and ACP countries will be cancelled as from 31 December 1990.

In the context of trade between the EC and the ACP states, the integra-

tion of East Germany into the European Community should be viewed as a positive development, representing as it does, an expansion of the market to which ACP countries have preferential access under the Lomé

Convention. In the longer term, a wider Europe with a unified market and a commitment to liberal conditions of trade will offer increased opportunities for its trading partners in the ACP. ○

security in Angola and Mozambique. These conditions are indispensable for the relief of the exhausted peoples of those countries and to enable them to start along the path to reconstruction and development to which the Community and its Member States are ready to contribute.

In the light of the results achieved so far, the Community and its Member States call on the parties concerned to continue to make every effort to ensure the success of the peace negotiations. ○

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## POLITICAL COOPERATION

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**Within the framework of the Council's decision on political cooperation between the 12 Member States, the European Community has issued the following declarations:**

### On Ethiopia

The Community and its Member States are following with deep concern developments in Ethiopia and are alarmed at the continuation of the civil war and the intolerable drain of men and resources which condemns the country to a pattern of destruction and permanent misery.

They strongly regret the interruption of the negotiations and the pursuit of a military solution of problems which are political in essence and which therefore call for negotiated solutions.

The Community and its Member States earnestly urge all parties to the conflict to work urgently towards a resumption of the negotiations aimed at peaceful settlement between the Ethiopian Government and the E.P.L.P. and the T.P.L.P.

They welcome the meeting of the six countries of IGADD and their efforts to improve mutual relations. They note with interest the proposal for an International Conference on the Horn of Africa which they consider could be useful for a global settlement of the problems of the region.

The Community and its Member States note with deep concern the deadlock in the talks concerning the utilisation of the port of Massawa, which is vital for the effective provision of aid to the population in the north of the country. The Community and its Member States hope that all the parties concerned in this humanitarian effort will agree on an operational plan for the distribution of food relief through Massawa. They reiterate their conviction that the

settlement of this matter is crucial and most urgent for the relief of the victims of war and famine.

### On Somalia

The Community and its Member States are following with concern developments in the situation in Somalia.

They condemn the continuing human rights violations in that country and in particular the killings in Berbera by Somali military forces of 20 members of the Issaq ethnic group. They are concerned about the security situation in Mogadishu. They call on the Somali Government to ensure more effective protection of the life and property of foreign citizens as well as of diplomatic missions in Somalia.

The Community and its Member States welcome the plan to organise a round table between the Government and the opposition to put an end to the civil war and lay the foundations for a renewal of Somalia's institutions. They therefore strongly appeal to all the parties concerned to seize this important opportunity for achieving national reconciliation, by active participation in the meeting of representatives of the Government and of all the other political forces in Somalia.

### On Angola and Mozambique

The Community and its Member States welcome the progress achieved in the peace negotiations under way in Angola and Mozambique. They hope that the negotiations will lead to an early cease-fire and to the establishment of conditions of peace and

## Commission focuses on Eastern Europe

The Phare programme, originally designed to help Poland and Hungary, has been extended to Czechoslovakia, Bulgaria and Yugoslavia while the European Investment Bank is ready to lend as much as ECU 2 billion each to Czechoslovakia, Romania and Bulgaria. A further sign of this greatly increased interest in Eastern Europe is the Commission's mandate to negotiate association agreements with Poland, Hungary and Czechoslovakia. President Delors was interested to hear Hungarian Prime Minister Antall say in July that he hoped to see his country join the EEC at the end of 1995. Shortly after this, Mr Delors went to the USSR to introduce the single market and to learn about the economic reforms taking place there with a view to more EEC-USSR cooperation. The Commission has also brought out a study of what is required to help the Eastern European countries develop new administrative, banking, tax and environmental structures in order to launch their economic expansion. Only Albania seems indifferent to the wind of change blowing across Eastern Europe and, after the closing of all European embassies (barring the Greek) in Tirana, the Commission sent senior officials out to take stock of the human rights situation there. As for Romania, the Council of Foreign Ministers has authorised the Commission to conclude negotiations for an economic and commercial agreement suspended since the political events in June. The Community is convinced it has an important part to play in Eastern Europe and in this context, further decisions are to be expected in the coming months. ○





# INDUSTRIAL OPPORTUNITIES

PUBLISHED EVERY TWO MONTHS

No.75 : NOVEMBER - DECEMBER 1990

## Increased EIB resources with favourable conditions to encourage industrial investment during Lomé IV.

*"The private sector needs to be made more dynamic and play a greater role, in particular through small and medium-sized enterprises (SMEs), which are better suited to conditions in the ACP economies."*

*- Enterprise Development chapter of the Lomé IV Convention.*

**P**art of the total finance package under the Lomé Conventions is provided by the European Investment Bank (EIB) for funding projects mainly in the industrial, agro-industrial, tourism, energy and mining sectors. The finance provided by the Bank is of two kinds: loans from own resources, essentially the proceeds of borrowings on the capital markets, and risk capital drawn

*Construction of a cotton ginning plant in Mali. The EIB provided a conditional loan for this project.*

from the European Development Fund (EDF) furnished from EEC Member States' budgetary contributions.

The global amount of European Community financial aid has been raised from Ecu 8.5 billion under Lomé III to Ecu 12 billion for the first five year protocol of Lomé IV. Of this amount, Ecu 10.8 billion, including Ecu 825 million of risk capital to be managed by the EIB (compared with Ecu 600 million under Lomé III) will be drawn from the European Development Fund (EDF), while up to Ecu 1.2 billion will be provided in the form of loans from the Bank's own resources.

Loans from the Bank's own resources are used principally for financing viable projects in countries whose economic and financial situation is such that they can assume the debt involved and adequately guarantee the service of that debt.

*(Continued on page 2)*

### MEETING THE CHALLENGES OF THE 90s

*The following editorial has been adapted from a message to the staff of CDI from its new Director, Paul Frix.*

**T**aking stock at the beginning of the Fourth Lomé Convention, it is clear that, since its inception, CDI has accumulated a great deal of valuable and varied experience in the field of project identification and the search for valid partners for small and medium-sized enterprises. A remarkable pool of expertise has been installed and the Centre's structures have been consolidated.

The new Convention places emphasis on the industrialization needs of ACP countries, the promotion of private investment, the development of joint ventures and access to external markets for ACP products. And it stresses the need for cooperation and convergence between the machinery put in place under the previous Conventions.

The need for such convergence is particularly acute in the context of the tragic economic and financial situation of the majority of African ACP countries, stifled by the burden of debt and the weakness of their economic, social and sometimes political structures.

Furthermore, while the opening-up of Eastern Europe creates promising prospects for the world economy in that it may spell the end of the ruinous arms race and release more resources for development assistance, in the short term it also heightens the risk of disinvestment

*(Continued on page 3)*





(Continued from page 1)

Finance provided by the Bank from risk capital is particularly well suited to the difficult financial situation and economic conditions prevailing in many ACP countries. Being funded from the EDF, loans from risk capital can be accorded on concessionary conditions and provide an opportunity to support operations which it would be inappropriate to finance from borrowed funds.

### LOWER INTEREST RATES

Under Lomé IV the rate of interest for loans from risk capital should be less than 3%, while provision has been made for the exchange risk to be shared between the European Community and the other parties concerned.

The interest rate subsidy for loans from the Bank's own resources has been increased from 3% under Lomé III to 4% under the new Convention. Furthermore the Convention stipulates that the interest rate borne by the borrower on loans from the Bank's own resources would not normally be less than 3% or more than 6% (compared with 5% to 8% under Lomé III).

### WHAT RISK CAPITAL MAY BE USED FOR

Risk capital may be used either for funding equity participations or as quasi-capital. Acting in the name of the European Community, the EIB may subscribe equity in the capital of companies or financial institutions. These are minority holdings of a temporary nature which are intended to be disposed of in due course, to nationals or institutions of the ACP State, or as otherwise agreed.

Quasi-capital may take the form of subordinated loans, repayment of which is subject to the prior fulfillment of other debt obligations; more frequently, quasi-capital takes the form of conditional loans, whose terms of repayment and interest rates are linked to the fulfillment of certain financial or technical targets agreed during the negotiation of such loans.

Risk capital may also be used for financing the identification and preparation of specific projects and for aiding enterprises during the pre-investment and start-up phase. The Fourth Lomé Con-

vention emphasizes rehabilitation schemes in addition to financing new investments and special emphasis is given to the private sector and small and medium-sized enterprises (SMEs).

### HOW THE RESOURCES ARE MADE AVAILABLE

In the industrial sector the EIB provides individual loans for larger projects and finances small and medium-sized ventures indirectly through global loans to development banks and other financial intermediaries. The selection and appraisal of projects to be financed under global loans is the responsibility of the intermediaries but generally the EIB has to approve each allocation on the basis of detailed documents provided by them. In many ACP countries the development banks are the sole institutions providing long-term finance and foreign exchange for project investment.

However, to ensure that a substantial portion of risk capital is devoted to investment in the private sector, under the Fourth Lomé Convention the EIB is empowered for the first time to use EC development finance companies and other financial intermediaries for channelling assistance to enterprises in the ACP countries.

It is also possible for the EIB to finance both ACP and EEC investors with the funding of part of their equity participation in a joint venture. The first example of such financing was reported in Industrial Opportunities No. 71 (January - February 1990). ♦

## HOW CDI CAN ASSIST YOU

CDI helps to prepare economically viable industrial projects in ACP countries. While CDI is not itself a financing institution, it can provide advice on possible sources of financing and assist small and medium-sized enterprises in the presentation of projects for EIB financing, either directly or through a financial intermediary operating an EIB global loan.

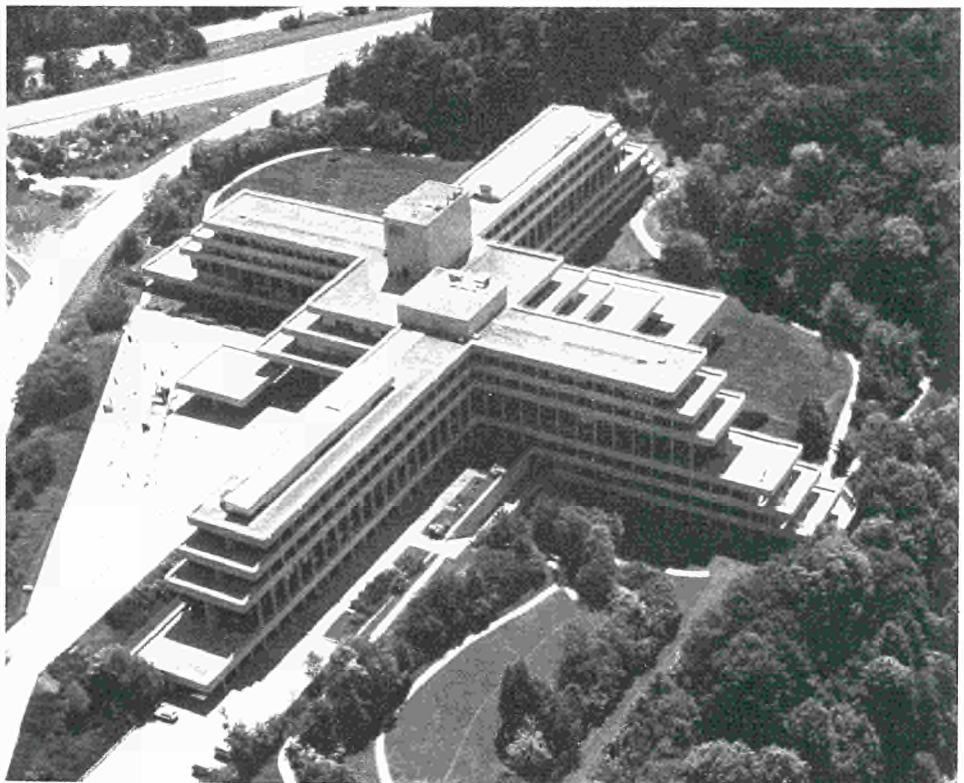
As provided for in Article 95 of the Convention, the Commission, the Bank and CDI maintain close operational cooperation in the context of their respective responsibilities.

The emphasis Lomé IV gives to industrialization and the private sector confirms CDI in its wish to develop systematically a complementary role in relation to the EIB and other development finance institutions.

CDI's contribution is relevant not only at the stage of the feasibility study and search for reliable partners, but also at the implementation stage, when technical assistance and advice can give precious support to entrepreneurs.

Thus CDI can improve the prospects for the success of an SME and accordingly reduce the degree of risk for the financial institutions involved. ♦

*EIB headquarters, Luxembourg.*





Paul Frax, CDI Director.

(Continued from page 1)

and loss of interest by European industrialists in Africa, a trend which was already discernible.

Finally, instability in the Middle East and the prospect of a new oil shock could aggravate the situation of a large number of ACP countries, especially if accompanied by a recession in the industrialized nations.

*How can CDI adapt itself to the new context and how can its resources of experience and expertise be put to most effective use?*

Firstly, it must show great versatility and professionalism in its interventions, demonstrating that it is a centre of excellence, an essential element in the field of assistance to investors and the promotion of industrial development through joint ventures.

Secondly, the relative isolation that CDI has suffered from the other industrial promotion bodies, set up under the Conventions, must be brought to an end. CDI must be allowed to serve and complement the activity of the other bodies involved in the promotion of industrial development; in particular the European Investment Bank and the Commission of the European Communities, which manages the European Development Fund. The individual countries of the EEC and regional or national development banks should also be able to find in CDI the ideal partner to help them select and support investors in ACP States.

Thirdly, CDI must adapt to the extremely diverse national and regional

## ENCOURAGING SME'S, A COORDINATED EFFORT

*This article has been extracted from the text of a paper delivered by J-M ANACORETA CORREIA, Head of Division for Industrial Cooperation, Investment and Enterprise (Directorate General for Development at the Commission of the European Communities), at a symposium on 10th July, 1990.*

**T**he new Convention urges the development of operational coordination of the activities of the European Investment Bank (EIB), CDI and the Commission, in particular with regard to promoting investment and enterprise development in the ACP countries. Economic operators should be aware of the division of responsibilities between these three entities.

As far as the Commission is concerned, its actions in favour of investments and the private sector take place in the framework of ACP national and regional indicative programmes. They concern essentially technical assistance activities (improvement of the legislative framework, investment incentives, reinforcing financing institutions, training etc.). In the area of financing, the Commission concentrates on financing SMEs in the craft, agricultural, commercial and services sectors, through the intermediary of an appropriate local financial institution.

The Commission works mainly on the macro-economic level, giving support to the activities of governmental, financial

environments with which it is confronted by mobilizing resources and capacity available locally on a decentralized basis. A diverse network of local antennae must be organized, coordinated and provided with substantial assistance so it can carry out locally a large part of CDI's work of identification, studies and direct assistance to investors.

To make this possible, additional resources must be secured in the form of voluntary grants and co-financing from EEC countries, as well as active participation in the industrial promotion activities foreseen in each ACP country's new funding plan (National Indicative

and professional institutions. It does not become involved directly at the level of individual economic operators.

*The author also described the role of the EIB, which we have covered in our separate accompanying article. Mr. Anacoreta Correia then described CDI in the following terms:*

CDI acts principally at the level of individual economic operators, up to now mainly in the pre-investment phase. It especially assists in preparing technical dossiers, market analysis, choice of technology as well presenting dossiers to the financial institutions. A much appreciated facet of CDI is that it can be approached directly by ACP and EEC entrepreneurs and project promoters.

CDI also assists in bringing about contacts between potential European and ACP partners to create joint ventures and other forms of partnership. But its activities are not limited to the pre-investment phase. CDI also participates successfully in rehabilitating enterprises and in providing technical support and training.

CDI is not a financing institution and does not manage sectorial programmes. It should become a privileged instrument of assistance in the project preparation phase for European SMEs becoming involved in ACP industrial production.

A clear awareness of the responsibilities of each of the three organizations or institutions should facilitate the efforts of industrial promoters to select and obtain the most appropriate form of assistance under the Lomé Convention. ♦

Programme) under Lomé IV.

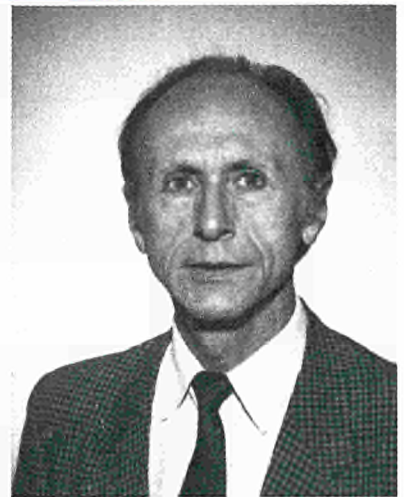
Finally, CDI should also give serious thought to finding new ways of increasing the chances of success of the policies and promotional activities involved in industrial cooperation and development, in ACP regional and national environments.

These are some of the objectives and the general philosophy that the new directorate of CDI intends to propose to its Executive Board and, subsequently, the Advisory Council and the Committee on Industrial Cooperation.

An immense, difficult but inspiring task lies before us. ♦

# CHANGES TO FRENCH AGENCY INCREASE COOPERATION OPPORTUNITIES

*PROPARCO, the French Promotion and Equity Company for Economic Development, is a subsidiary of the Caisse Centrale de Cooperation Economique (Central Fund for Economic Cooperation), the channel for French governmental economic aid. CDI has had a cooperation agreement with PROPARCO since 1987, and has worked together with it on a number of projects (see opposite page). Important changes in the role and geographical area of activity of the organization took place recently. They are explained here by Georges Cancade, Secretary General of Proparco.*



Georges Cancade.

## FROM A VENTURE CAPITAL FUND TO A FINANCIAL INSTITUTION WITH A WIDER GEOGRAPHICAL COVERAGE

In 1990 PROPARCO has acquired an extra dimension. It has been transformed into a financial institution and is now enabled to grant medium and long term loans, in addition to or independently from its contributions to venture capital or equity which were previously its only financial products.

Its area of activity has been extended to cover all of Africa, including English-speaking countries, with the exception of South Africa, Egypt and Libya. It will continue to cover the Indian Ocean and part of the Caribbean.

## INCREASED FUNDS AND CONSOLIDATED ACTIVITIES

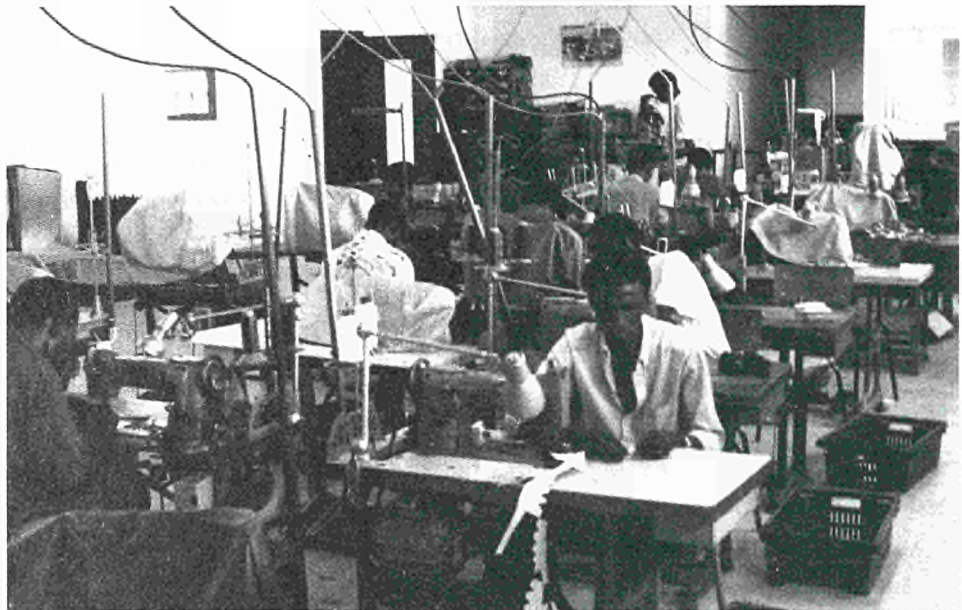
PROPARCO's own funds have been increased by more than 175 million French francs in a year and now amount to 225 million francs (Ecu 32.6 million).

The Caisse Centrale de Cooperation Economique will provide credit lines to finance PROPARCO's lending operations. Shareholdings were offered to 18 major French and international financial institutions and to major enterprises already established in Africa.

Obviously it will be possible to undertake complementary activities with these investors, as with PROPARCO's own network of partners, built up since 1977.

## A WIDER RANGE OF ENTERPRISES AND SECTORS

Until now PROPARCO's investment in individual projects has ranged from 100,000 to 3 million French francs (Ecu 14,500 to Ecu 43,500) while total investment in their projects varied between 1 million and 100 million francs (Ecu



Sandal-making at SAFRISAND, Senegal, a PROPARCO project assisted by CDI.

145,000 and Ecu 14.5 million). Now larger contributions in venture capital and loans will be possible, if needed.

The productive and services sectors will remain PROPARCO's preferred areas of intervention, with a more sustained focus on privatizations, rehabilitation and commercial activities related to expansion.

Investments in projects producing for local markets have declined due to reduced purchasing power. However, export-oriented and foreign exchange earning projects have considerably compensated for this development.

At present PROPARCO's portfolio is divided as follows:

- by sector:
  - agro-food ..... 40%
  - mechanical and electrical industries ..... 12%

- chemical industries, leather and skins ..... 18%
- woodworking and miscellaneous industries ..... 6%
- services linked to industry and hotels ..... 24%

• by type of enterprise:

- newly formed ..... 24%
- expansions ..... 14%
- restructurings and expansions ..... 40%
- restructurings ..... 11%
- privatizations ..... 10%
- takeover of assets ..... 1%

To the 22 States in which PROPARCO has invested in almost 100 projects since it was founded (of which 60% are in West Africa) will be progressively added the English-speaking countries of East and Southern Africa. ♦

## What PROPARCO's changes mean to SMEs

The development of PROPARCO into a financing body able to make loans is firstly a procedural simplification. As Francois Colas, PROPARCO's Director General has said, it will gradually take over the lending function from the Caisse Centrale. This means that enterprises will only have to deal with one French organization instead of two. Another important change is the increase in resources obtained by offering shareholdings in PROPARCO to outside institutions and enterprises. These changes also reflect the bigger stress being put on the private sector in French cooperation.

From CDI's point of view, the extension of PROPARCO's area of activity to English-speaking Africa will also lead to even greater cooperation than has been achieved since the 1987 agreement.

PROPARCO is situated at Cité du Retiro 35/37, Rue Boissy d'Anglas, 75379 Paris, France. Phone: (1) 40 0631 31, Fax: (1) 49 24 06 40, Telex: 212 632 F.

### JOINT CDI AND PROPARCO PROJECTS

A long-standing and fruitful collaboration has developed between PROPARCO and CDI, to which a portfolio of no less than thirteen projects that called for CDI's assistance bears witness.

The following enterprises received training and/or technical assistance from CDI

- Comaser, Congo, maintenance of petroleum equipment.
- Romisco, Cameroon, leather goods.
- Gold & Platinum, Mauritius, jewellery.
- Safrisand, France & Senegal, shoes.
- Ducros, Togo, Spices.
- Plastique Industries, Gabon, plastic products.
- Sivoclim, Côte d'Ivoire, airconditioners.
- SAP (Société Africaine des Pneumatiques), Burkina Faso, tyres.
- Pharmaivoire SA, Côte d'Ivoire, perfusion solutions.
- Saig Mamou, Guinea, fruit and vegetable pulp and juice.
- Mauricompost, Mauritius, lumbri-compost (natural fertilizer).
- Sweat Sun, Mauritius, sportswear.

A restructuring study was carried out for FAEM (Fabrication d'Appareils Electromenagers), Cameroon, an electrical goods enterprise. ♦

## DAKAR FORUM 1990

an ideal environment  
to plan cooperation  
in West Africa

The 1990 EEC-West Africa Forum will take place in Dakar from the 3rd to the 6th December. The biennial event is financed by the EEC and sponsored by ECOWAS (Economic Community of West African States).



CDI helps to ensure the practical usefulness of the Forum by identifying, pre-screening and selecting a large number of viable investment projects from all over the 16 States of the Region.

Forty-three ECOWAS promoters will be invited to Dakar by CDI. From previous experience it can be expected that at least 500 business people will participate in all.

The Forum is an ideal environment for negotiations, with CDI at hand to provide assistance. It also offers an opportunity for promoters from different countries in the Region to meet each other as well as to discuss their projects with financial institutions.

As in the past, the event promises to prove an effective incubator of agreements between ACP and EEC entrepreneurs.

### CDI-PROMOTED PROJECTS AT THE DAKAR FORUM

The promoters of the following projects will be attending the Forum. EEC firms interested in meeting any of these promoters are invited to get in touch with CDI, mentioning the relevant reference number and country.

**BENIN** Soft drinks (90/03/B) • Brush manufacture (90/02/B)

**BURKINA FASO** Fruit juices and concentrates (90/05/A) • Vegetable canning and jam making (90/06/A) • Paint factory (90/11/A) • Nylon sponge and net making (90/20/B) • Cosmetic manufacture (90/10/B) • Hunting cartridges (90/09/B)

**CAPE VERDE** Concrete building products (90/02/B)

**COTE D'IVOIRE** Large electrical domestic appliances (90/02/B) • Karité nut butter (90/03/B) • Computer stationery (90/05/B)

**GAMBIA** Processed seafood (90/02/B) • Lime juice and other fruit products (90/03/B) • Peanut butter and salted peanuts (90/04/B)

**GHANA** Knock-down furniture (90/07/B) • Tyre retreading (90/04/A) • Salt industry (90/03/B) • School chalks (90/09/B) • Poultry, piggery and pork processing (90/01/A) • Aluminium louvred window components (90/12/A)

**GUINEA BISSAU** Fruit juice (90/10/B) • Concrete building products (90/03/B) • Ice, candles and detergent (90/06/B)

**MALI** School exercise books (90/01/A) • Aluminium cooking utensils (90/12/B) • Cotton wool, gauze and diapers (90/14/A) • Kraft paper (90/18/B) • Soap and detergent (90/11/B)

**MAURITANIA** Sawmill (90/03/B) • Paper products (90/07/B)

**NIGER** Clay bricks (90/03/A)

**NIGERIA** Rubber hose (90/08/A) • Fruit juice (90/02/B) • Fruit juice and tomato paste (90/03/B)

**SIERRA LEONE** Cocoa powder and butter (90/09/A) • Garments (90/03/B) • Toothpaste (90/05/B) • Commercial printing (90/02/B)

**TOGO** Notebooks and computer paper (90/05/B) • Soap (90/09/A)

## OPPORTUNITY TO ACQUIRE CERAMICS MANUFACTORY IN KENYA

Ceramic Industries of East Africa Ltd., a parastatal company to be privatized, is the only major ceramics manufacturer in Kenya. During the past two years the company's business has been under the control of receivers who have resolved all major technical and quality control problems, restored all production departments to profitability, established a rising turnover trend and demonstrated that the required rehabilitation of plant and machinery can be carried out at reasonable cost using mostly local engineering skills.

The company, situated in the Nairobi industrial area, produces crockery, tiles and sanitary ware using 100% locally produced clay body and a growing percentage of locally produced glaze.

The Kenyan Minister for Industry, Mr. Dalmas Otieno Anyaago, as reported in the Standard Newspaper of Kenya on 6th September 1990, said that the government would invite the private sector to invest in the equity of commercial parastatals up to a level of 60%. Specifying Ceramic Industries as a clear case for privatization, he said that the government would not allow it to collapse, but would rehabilitate it to a point where it could meet its obligations.

### Volume of Production (pieces per month)

	Current output	Potential output (following rehabilitation)
Crockery	48,000	90,000
Tiles	218,500	630,000
Sanitary ware	650	1,950

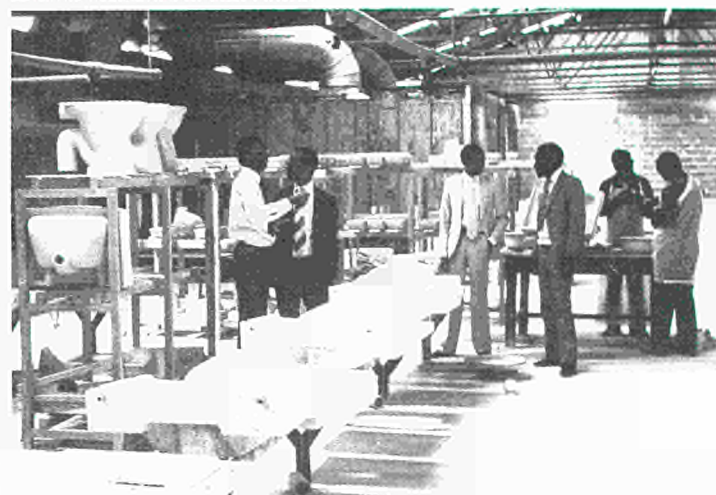
Number currently employed: 144 people

Ceramic Industries' land, buildings, plant, machinery, furniture, fittings and office equipment were valued at approximately Ecu 3 million in January 1989. This figure excludes inventories and motor vehicles.

Further information is available from the General Manager of Ceramic Industries of East Africa Ltd., Mr. P. von Saaf, P.O. Box 48720, Nairobi, Kenya, phone: (254 2) 559999, fax: 335937, telex: 25341 Ceramics, or from the Receiver, P.O. Box 41968, Nairobi, Kenya (phone and fax numbers as for the General Manager.)

*If a European firm decides to consider investing in response to this privatization offer, CDI may be able to provide it with support and assistance. The European firm should present itself to CDI, describing its existing business and its proposals for the Kenyan manufactory.* ♦

Ceramic Industries of East Africa.



## INDUSTRIAL COOPERATION IN MOZAMBIQUE

### Seminar brings positive results

**M**ozambique is an increasingly promising area for industrial cooperation. It has a good industrial infrastructure with particularly well developed transportation and port facilities. Many existing industries are to be privatized in a more and more stable political climate. A favourable investment code was introduced in 1984, complemented in 1990 by a Trust Fund for the Development of Small-Scale Industry (FFPI - Fundo de Fomento a Pequena Industria) funded by the EIB (European Investment Bank) and the World Bank.

A seminar to bring together European investors and Mozambican SME promoters was held in Maputo on 29th and 30th August. Requested by Mozambique, it was the first seminar of its kind and was

jointly organized by CDI, ICEP (the Portuguese Institute for External Trade) and IDIL (the Mozambique Institute for the Development of Local Industry), CDI's antenna organization. It took place during the 26th International Agricultural, Commercial and Industrial Fair of Maputo, an event of growing importance in the Southern African Region.

The seminar was attended by some 70 European and 100 Mozambican entrepreneurs. Much of the time during the two days was given over to discussions between potential ACP and EEC business partners. These were monitored and assisted by representatives of CDI, ICEP and IDIL. During the course of the seminar opportunities in parts of the country outside the capital Maputo, which offered both natural resources and project opportunities, attracted particular interest.

By the time the seminar had ended three letters of intent were signed for joint venture projects in the pharmaceutical, plastics and leather industries.

The investment code initiated in 1984 permits majority foreign participation in enterprises and repatriation of profits as well as offering extensive tax incentives. In addition to the FFPI fund mentioned above, a governmental Programme of Economic Rehabilitation (PRE) was initiated in 1987.

CDI and IDIL have agreed to prepare proposals, studies and evaluations of projects for the Bank of Mozambique. Indeed, CDI has already promoted projects extensively in Mozambique and carried out no less than 31 interventions during the last three years in various industrial sectors.

The Minister of Industry and Energy of Mozambique, Dr. Antonio Branco and the Secretary of State for Foreign Trade of Portugal, Dr. Antonio Neto da Silva, were present, as were the President of ICEP, Mr. Pedro de Almeida and the Vice-Governor of the Bank of Mozambique, Mr. Adriano Maleiane. Monitoring negotiations were Drs Johannes Steketee and Fernando Matos Rosa of CDI. ♦

## Papua New Guinea woos private investment in the non-mining sector

**P**apua New Guinea's Minister for Trade and Industry, John Giheno, visited CDI in Brussels on October 2nd to meet representatives of some dozen European enterprises as well as European Commission officials and the CDI Directorate.

The Minister's visit was a prelude to an investment promotion mission to Europe which is planned for early 1991. It is Papua New Guinea's intention to promote investment in the non-mining private sector.

Mr. Giheno reported that representatives of the World Bank and the International Monetary Fund have made "very encouraging reports" on the successful implementation of structural reforms in his country. He expected that the Bougainville copper mine, whose closure has been the subject of world headlines, will re-open by 1992. In addition, major projects for the production of gold, hydrocarbons and oil, are expected to come on stream. Papua New Guinea therefore predicts economic recovery in about two to three years.

There is now a "definite diversification policy to support and develop the non-



*John Giheno, Minister for Trade and Industry, Papua New Guinea.*

mining private sector", said Mr. Giheno. A whole series of measures are being taken to encourage private sector investments, including industrial estates, tax holidays for new industries and a one-stop-shop investment promotion body. The Minister anticipated that assistance for infrastructural development, whether in roads, energy or water-supply, would be available under the Lomé Convention, to reduce investments costs.

CDI Director Paul Frix spoke encouragingly of the rich mineral, forestry, agri-

cultural and marine resources of Papua New Guinea. European industrialists, he said, are only starting to pay attention to this country's resources.

Surendra Sharma, Deputy Director of CDI, referred to Papua New Guinea as the "sleeping giant of the Pacific" that can plug into a regional market of 16 million consumers through important trade agreements. The Minister's visit, said Mr. Sharma, was a signal that the country was now in a period of transition towards an active industrialization policy. He pledged CDI's support for next year's investment promotion mission. ♦

## FIJI FINANCE MINISTER VISITS CDI

**T**he Hon. Josefata Kamikamica, Fiji's Minister for Finance and Economic Planning, visited CDI's Brussels Headquarters on October 9th.

Discussions were held with the Director and the Deputy Director, Mr. Paul Frix and Mr. Surendra Sharma respectively.

Accompanying the Minister were Fiji's Ambassador to the European Communities, Mr Kaliopate Tavola, and the Commercial Attaché, Mr. Joe Maivusaroko.

The discussions centred mainly around the possibility of closer cooperation with CDI to source investment from Europe in the form of joint ventures and other forms of industrial cooperation such as technical collaboration, marketing tie-ups and so forth.

The Minister acknowledged CDI's positioning as an important instrument in assisting the private sector in Fiji to take practical advantage of Lomé IV incentives and to reach out to the European investor.

CDI's Director, Mr. Frix, advised that the Centre would encourage initiatives by the Fiji Government, possibly through the FTIB and similar bodies, to seek CDI's

involvement in National Indicative Programmes approved by the EDF, where projects may need inputs to identify collaborators, technical assistance, feasibility studies, project start-up assistance, etc., as well as to assist in trade and investment promotion in Europe.

Mr. Kamikamica said he hoped CDI's assistance would be sought by the Fiji Trade and Investment Board, particularly in the implementation of the recently approved EDF package for trade and investment promotion to be coordinated by the Ministry of Trade and Commerce. ♦



## 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, franchising, licencing, sub-contracting, marketing, management or other agreements with local businessmen.

ACP entrepreneurs interested in any proposal are invited to write to CDI quoting the reference number. However, CDI will not be in a position to act upon letters received unless ACP entrepreneurs provide all the information requested at the bottom of the page.

Where a joint venture is proposed, the EEC companies are willing to consider contributing (depending on the country and the project) some 20% of the equity investment. For other proposals, the companies are committed to entering into long-term agreements for the creation of profitable ventures.

Where second hand equipment is suggested, CDI may sponsor an evaluation by an independent expert of the quality, cost, suitability and condition of such equipment.

All equipment costs are quoted in Ecus (European currency units). The value of the Ecu may easily be ascertained from its relationship to other European currencies. Thus, on 2 October 1990: 1 Ecu = £ 0.702, or FF 6.896, or DM 2.058.

Please ALWAYS mention the CDI reference numbers when reproducing these proposals.

### 90/147 FO PORTUGAL

AGRO-FOOD  
ENTERPRISE

*Seed production, fruit and vegetable processing.*

**Minimum capacity:** depends on type of product, but the equivalent of a turnover of Ecu 1,540,000 per year can be processed for a minimum investment of Ecu 2 million (new equipment).

**Cooperation proposed:** equity participation, transfer of know-how and technical assistance.

### 90/136 CHE PORTUGAL

PHARMACEUTICAL  
PRODUCTS

**Minimum capacity:** the equivalent of a turnover of Ecu 113,163 per year (but this can vary with the type of product to be manufactured); the minimum investment will also vary with the range of products.

**Cooperation proposed:** equity participation, technical assistance and training.

### 90/153 EX PORTUGAL

GRANITE, MARBLE  
ETC.

*Marble and granite blocs, semi-precious stones and gold mining.*

**Minimum capacity:** the capacity as well as the minimum investment will depend on the type of material to be extracted; the enterprise should have an annual turnover of around Ecu 6 million.

**Cooperation proposed:** equity participation, training assistance.

### 90/115 EX BELGIUM

SMALL SUCTION  
DREDGERS

*Suction dredgers for the extraction of sand from river beds, ports, etc.*

**Minimum capacity:** 100 m<sup>3</sup>/hour of pure sand (1500 working hours per year) for a minimum investment of Ecu 95,000.

**Cooperation proposed:** transfer of know-how, technical and training assistance, sub-contracting agreement, marketing agreement.

### 90/130 LE/RU PORTUGAL

ITEMS FOR SHOE  
INDUSTRY

*Natural and synthetic leather and natural rubber items for the shoe industry. (Some of the production could also be used by the furniture and leather industries).*

**Minimum capacity:** this and the minimum investment depend on the type and quantity of items to be manufactured.

**Cooperation proposed:** equity participation, transfer of know-how, technical and training assistance, marketing agreement; (the Portuguese company has an annual turnover of about Ecu 35 million).

### ***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 are available locally, etc.
- Describe your present activities plus your industrial and/or commercial experience, enclosing any available information such as your latest balance sheet.
- 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.



# OPERATIONAL SUMMARY

No. 59 — November 1990

(position as at 23rd October 1990)



## 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 ALA 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  
Berl. 6-86  
200, rue de la Loi  
B-1049 Brussels

Please cover only one subject at a time.

## DESCRIPTION SECTOR CODE

<b>A1</b>	<b>Planning and public administration</b>	<b>A5B</b>	Industrial development banks
A1A	Administrative buildings	A5C	Tourism, hotels and other tourist facilities
A1B	Economic planning and policy	A5D	Export promotion
A1C	Assistance to the normal operations of government not falling under a different category	A5E	Trade, commerce and distribution
A1D	Police and fire protection	A5F	Co-operatives (except agriculture and housing)
A1E	Collection and publication of statistics of all kinds, information and documentation	A5G	Publishing, journalism, cinema, photography
A1F	Economic surveys, pre-investment studies	A5H	Other insurance and banking
A1G	Cartography, mapping, aerial photography	A5I	Archaeological conservation, game reserves
A1H	Demography and manpower studies		
<b>A2</b>	<b>Development of public utilities</b>	<b>A6</b>	<b>Education</b>
A2A	Power production and distribution	A6A	Primary and secondary education
A2Ai	Electricity	A6B	University and higher technical institutes
A2B	Water supply	A6Bi	Medical
A2C	Communications	A6C	Teacher training
A2D	Transport and navigation	A6Ci	Agricultural training
A2E	Meteorology	A6D	Vocational and technical training
A2F	Peaceful uses of atomic energy (non-power)	A6E	Educational administration
		A6F	Pure or general research
<b>A3</b>	<b>Agriculture, fishing and forestry</b>	A6G	Scientific documentation
A3A	Agricultural production	A6H	Research in the field of education or training
A3B	Service to agriculture	A6I	Subsidiary services
A3C	Forestry	A6J	Colloquia, seminars, lectures, etc.
A3D	Fishing and hunting		
A3E	Conservation and extension	<b>A7</b>	<b>Health</b>
A3F	Agricultural storage	A7A	Hospitals and clinics
A3G	Agricultural construction	A7B	Maternal and child care
A3H	Home economics and nutrition	A7C	Family planning and population-related research
A3I	Land and soil surveys	A7D	Other medical and dental services
		A7E	Public health administration
<b>A4</b>	<b>Industry, mining and construction</b>	A7F	Medical insurance programmes
A4A	Extractive industries		
A4Ai	Petroleum and natural gas	<b>A8</b>	<b>Social infrastructure and social welfare</b>
A4B	Manufacturing	A8A	Housing, urban and rural
A4C	Engineering and construction	A8B	Community development and facilities
A4D	Cottage industry and handicraft	A8C	Environmental sanitation
A4E	Productivity, including management, automation, accountancy, business, finance and investment	A8D	Labour
A4F	Non-agricultural storage and warehousing	A8E	Social welfare, social security and other social schemes
A4G	Research in industrial technology	A8F	Environmental protection
		A8G	Flood control
<b>A5</b>	<b>Trade, banking, tourism and other services</b>	A8H	Land settlement
A5A	Agricultural development banks	A8I	Cultural activities
		<b>A9</b>	<b>Multisector</b>
		A9A	River development
		A9B	Regional development projects
		<b>A10</b>	<b>Unspecified</b>

**\*\* From January 1990 PABLI will be updated twice monthly.**



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To obtain any information concerning PABLI please write, specifying the option chosen (terminal or telex) to:

**ECHO Customer Service**  
**177, Route d'Esch**  
**L-1471 LUXEMBOURG**  
**Tél.: 352/48.80.41**  
**Télex: 2181**

ECHO is in charge only for PABLI. For general correspondence see page I.

# ACP STATES

New projects are printed in italics and offset by a bar in margin at left  
 Updated projects marked with an asterisk and with words or phrases in italics

## ANGOLA

**Sanitation of Luanda. Priority actions.** Resp. Auth.: Ministry of Plan. 13 mECU. Purchase of equipment for urban solid waste and road works. T.A. for the new department for the town sanitation. Int. tender (conditional) launched in July 90. *Date financing October 90.* 6th EDF. EDF ANG 6014 A8a

**Namibe-Lubango-Makala road rehabilitation sections 3+4 (Serra da Leba-Lubanga, PK 41.1).** Resp. Auth.: Ministério do Plano. Estimated total cost 17 mECU. EDF 16 mECU, local 1 mECU (Counterpart Funds). Rehabilitation and strengthening of 74 km. Project on appraisal. 6th EDF. EDF ANG 6011 A2d

## BAHAMAS

**Rehabilitation of great Abaco highway. Abaco Island.** Resp. Auth.: Ministry of Works. EDF part 1.253 mECU. Works by acc. tender. Project on appraisal. Date foreseen for financing December 90. 4th, 5th and 6th EDF. EDF BM 6003 A2d

## BELIZE

**Belize City Hospital. Phase I.** Estimated cost 8.6 mECU. Work constructions and supply of equipment. 4th, 5th, and 6th EDF. Works: in. tender foreseen 4th quarter 90. Project in execution. EDF BEL 6004 A7a

**Community Development Programme.** Resp. Auth.: Ministry for Social Services. 0.150 mECU. Project preparation study. Short-list done. Project on appraisal. 6th EDF. EDF BEL 6002 A6b

## BENIN

**Mono rural development programme.** Development of the rural production. Cofinancing with BAD. EDF 16,5 mECU, BAD 14,4 mECU, local 4.9 mECU. Project in execution. 6th EDF. EDF BEN 6003 A3a

**Fish breeding. Applied research and popularization actions.** Resp. Auth.: MDRAC. Estimated cost 2 mECU. Project on appraisal. 6th EDF. EDF BEN 6009 A3d

## BOTSWANA

**Support programme to Botswana copper-nickel mining industry.** Resp. Auth.: BCL Ltd (Bamangwato Concessions Ltd). 21.650 mECU. Works, exploration drillings, supply of mining equipment by int. tender. Replacements parts by direct agreement. T.A. to prepare int. tender dossier, evaluation and follow-up of the tender. Project in execution. 6th EDF. EDF BT SYS 6019 A4a

**Livestock marketing development project.** Resp. Auth.: Botswana Cooperative

Union. 2.4 mECU. Provision of infrastructures, transports, T.A. Project in execution. 6th EDF. EDF BT 6014 A3a

**Water development programme.** Resp. Auth.: Department of Water Affairs. 2 mECU. Serowe waste water sanitation and T.A. to the Department of water affairs. Project in execution. 6th EDF. EDF BT 6023 A2b, A8c

## BURKINA FASO

**Operation rice Comoè. Phase II.** Resp. Auth.: Ministère de l'Agriculture et Elevage. 3.420 mECU. Works by direct labour, supplies, training. T.A. by S.N.V. (The Netherlands). Project in execution. 6th EDF. EDF BK 6008 A3a

**Ouagadougou commercial zone roads.** Resp. Auth.: Ministère de l'Equipement. Dir. Gen. des T.P. 3.730 mECU. Works by acc. tender. Supervision: short-list done. Project in execution. 5th EDF. EDF BK 5026 A2d

## BURUNDI

**Socio-economic development of the natural region of Mugamba.** Resp. Auth.: CVHA project, OTB, Ministère du Dév. Rural, Direction Générale des Routes. 32 mECU. Works, supplies, T.A. and evaluation. Project in execution. Int. tender for works launched in November 89. Int. tender for supplies launched in July 90. 6th EDF. EDF BU 6018 A3a

## CAMEROON

**Rural development programme in the Bénoué basin.** Resp. Auth.: Mission d'études pour l'aménagement de la vallée supérieure de la Bénoué (MEAVSB). Total estimated cost 30 mECU, EDF part 25 mECU. Roads network, schools, health centres, rural water supply. Support to crop production and fishery. Irrigated agricultural areas, fight against soil and surface vegetation degradation. Works, supplies, T.A. and training. Project in execution. 6th EDF. EDF CM 6002 A3a

**Rural development programme in the Logone and Chari.** Resp. Auth.: Semry. Estimated cost 12 mECU. Consolidation and extension of existing actions. Project on appraisal. 6th EDF. EDF CM 6013 A3a

**Rural development poles: Saa-ntui, Sang melima, Bafut.** Resp. Auth.: Ministère de l'Agriculture et du Plan et de l'Aménagement du Territoire. Total estimated cost 14.625 mECU. EDF 10.300 mECU, local 4.325 mECU. Strengthening of the monitoring structures, improvement and extension of basic socio-economic infrastructures, training, education, popularization of rural development, health. Works: tracks, buildings; supplies for civil works, vehicles, crop inputs, rural equipment. Project on appraisal. 6th EDF. EDF CM 6012 A3a

## CENTRAL AFRICAN REPUBLIC

**Conservation programme for the eco-system in the North.** National game and natural reserves. Supervision for protected areas. Monitoring, management. Supply of infrastructures. EDF 25 mECU. Supplies: first int. tender launched in August 89. Project in execution. 6th EDF. EDF CA 6002 A3a

**Development programme of the Central and Southern region.** Resp. Auth.: Ministère du Dév. Rural. 20,3 mECU. To strengthen coffee plantations in the villages and the infrastructure, diversifications in ex-cotton zones; rural health and human hydraulics, T.A., studies, following and evaluation. Short-lists already drawn up. Project in execution. 6th EDF. EDF CA 6005 A3a

## CHAD

**Rural development priority programme in the concentration zone.** Resp. Auth.: Ministère de l'Agriculture et de Dév. Rural. 15 mECU. Hydro-agricultural works, infrastructure, education, health. Works, supplies and T.A. Project in execution. 6th EDF. EDF CD 6002 A3e

**Strengthening of the health sector in the Sahelian prefectures.** Resp. Auth.: Ministère de la Santé Publique. 12 mECU. Supply of essential medicines, training programme and T.A. Int. tender for vehicules launched in July 90. Project in execution. 6th EDF. EDF CD 6003 A7e

**Rural development programme. Phase 2.** Resp. Auth.: Office National de Dév. Rural (ONDR). 28 mECU. Works, feeder roads, scholar buildings, agricultural equipment, pumps, T.A., follow up and evaluation. Project in execution. 6th EDF. EDF CD 6005 A3a

**Development of basic infrastructure.** Resp. Auth.: Ministère des Travaux Publics. 3 mECU. N'Djamena. Rehabilitation of 5 administrative buildings. Strengthening of the Chagoua bridge and of Chari river banks in Farcha. Works by acc. tender. Supplies by int. tender. Project in execution. 4th and 5th EDF. EDF CD 5017 A1a, A2d

## COMOROS

**Rural integrated development programme in the north region of Anjouan Island.** Resp. Auth.: Ministère de la Production agricole. 11.3 mECU. Improvement of crop production, infrastructure, works by int. tender (conditional) launched end June 89. Supply of equipments, materials and vehicles. T.A., training, evaluation, audit. Project in execution. 6th EDF. EDF COM 6002 A3a

**Artisanal fishery. Second Phase.** Resp. Auth.: Ministère de la Production Agricole. 1.500 mECU. Purchase of equipment, T.A.

and training. Project on appraisal. Date fore-  
seen for financing **end 90**. 6th EDF.  
EDF COM 5017 A3d

## CONGO

**FEDAR (EDF regional action for the Pool and Cuvette)**. Resp. Auth.: Ministère du Plan. 36 mECU. Roads, wells, rural infrastructure, supervision of works, line of credit, monitoring. Road: int. tender launched in August 89. Project in execution. 6th EDF.  
EDF COB 6002 A3a

**Loudima-Sibiti road**. Resp. Auth.: Ministère de l'Équipement. 4.4 mECU. Works by acc. tender. T.A. for supervision. Project on appraisal. Date foreseen for financing **December 90**. 6th EDF.  
EDF COB 6006 A2d

## COTE D'IVOIRE

**Support to the livestock development**. Continuation and completion of the Marahoué Ranch (T.A., investment, training) and support to "Centre National d'Élevage Ovin". 11 mECU. Project in execution. First int. tender for supply launched in December 89. 6th EDF.  
EDF IVC 6003 A3a

**Centre food crops programme**. Resp. Auth.: Ministère de l'Agriculture. EDF 40 mECU. Irrigation, agriculture modernization, young settlements. Food crops production marketing improvement. Works, soil improvement, supplies, T.A. studies, follow-up and evaluation. Project on appraisal. Date foreseen for financing **2nd half 90**. 6th EDF.  
EDF IVC 6009 A3a

**Energy sectoral import programme**. Resp. Auth.: Ministère de l'Économie et Finances. 41 mECU. Purchase by the S.I.R. (Société Ivoirienne de Raffinage) of ±2.3 millions oil barrels by int. tender. First int. tender awarded. Project in execution. 6th EDF.  
EDF IVC 6011 A4ai

## DJIBOUTI

**Urban development programme**. Resp. Auth.: Ministère des Travaux Publics, de l'Urbanisme et du Logement et Ministère de l'Intérieur. 4 mECU. Rehabilitation, construction of waste water controlled network, works and supplies, road assessments to improve rain waters. Works: int. tender launched in July 90. Project in execution. 6th EDF.  
EDF DI 6002 A2d

**Training programme**. 2.2 mECU. New vocational training actions for adults. T.A. for training centres. Training, scholar-ships and training courses. Works and supplies. Project in execution. 6th EDF.  
EDF DI 6101 A6d

## EQUATORIAL GUINEA

**Forestry support programme**. Resp. Auth.: Ministère de l'Agriculture de l'Élevage, de la Pêche et des Forêts (MAEPF) 1.190 mECU. Assessment of the forest feeder roads network. Support to the definition and application of governmental measures to preserve forest patrimony. Support to improve

timber export control. Project in execution. 6th EDF.  
EDF EG 6001 A3c

**Essential goods import programme**. Resp. Auth.: Présidence de la République. Estimated cost 1.5 mECU. Hard currency allowance to import essential goods. Project on appraisal. 5th and 6th EDF.  
EDF EG 0000 A1c

**Support to the agricultural development of the Bata district. Phase II**. Resp. Auth.: Ministère de l'Agriculture. 1.7mECU. Rehabilitation or buildings extension. Supply of equipments. T.A. by Association Française des Volontaires. Project in execution. 6th EDF.  
EDF EG 6004 A3a

## ETHIOPIA

**North Shewa rural reclamation and development programme**. Resp. Auth.: Ministry of Agriculture. Total cost 28.5 mECU. EDF 24 mECU, local 4.5 mECU. Soil and water conservation, reforestation, rural infrastructure development and feeder roads. Works, supply of equipment, vehicles, T.A. and line of credit. Project in execution. 6th EDF.  
EDF ET 6001 A3a

**Central Shewa peasant agriculture development programme**. Resp. Auth.: \*Ministry of Agriculture. 53.4 mECU. Buildings, roads, rural infrastructure, agricultural inputs, consumer goods, equipments, T.A., studies, credit line. Project in execution. 6th EDF.  
EDF ET 6002 A3a

**South Shewa conservation-based rural development**. Resp. Auth.: \*Ministry of Agriculture. 26.2 mECU. Buildings, roads, rural infrastructure, agricultural inputs, consumer goods, training, T.A., micro-projects, credit line. Project in execution. 6th EDF.  
EDF ET 6005 A3a

**Coffee improvement programme III**. Resp. Auth.: Ministry of Coffee and Tea Development. 38.1 mECU. Construction and civil works, supply of equipments, vehicles and agric. inputs, aerial photography, training and T.A. Project in execution. 6th EDF.  
EDF 6003 A3a

**Lake fisheries project**. Resp. Auth.: Ministry of Agriculture, Fishery Dept. 7.5 mECU. Provision of inputs to fishermen, development of cooperatives, establishment of marketing organisation and infrastructure, training, research and fingerling production centers. Works, supplies and T.A. Project in execution. 6th EDF.  
EDF ET 6008 A3d

**Aid for refugees**. Contribution to the UNHCR and to MSF. Transport sector, water sector, health sector. Project on appraisal. 8.1 mECU. 6th EDF.  
EDF ET 6104 A8

**Sectoral import programme for the agricultural sector. Phase II**. Provision of agricultural inputs (fertilizer and machinery), steel, works and T.A. Spares, chemicals, raw materials for the industrial sectors. 24 mECU. 3rd int. tender launched in July 90. Project in execution. 6th EDF.  
EDF ET 6009 A3a

**Sectoral import programme. III**. Resp. Auth.: S.I.P. Steering Committee. 17 mECU. Supply of fertilizers and raw materials. Spare parts. Public sector industrial inputs and private sector. T.A. and monitoring and evaluation. **Date financing October 90**. 6th EDF.  
EDF ET 6017 A3a

**Foreign trade development**. Resp. Auth.: Ministry of Foreign Trade (MOFT). 1.5 mECU. T.A.: two-years marketing expert a team of marketing specialists (short-term consultancy services in Ethiopia); Market researches, training on international marketing and international trade, technical seminars. \*Equipments and supporting services. **Date financing September 90**. 6th EDF.  
EDF ET 6010 A5de

## FIJI

**Investment and export development**. Resp. Auth.: Ministry of Trade and Commerce (MTC) and Fiji Trade and Investment Board. 7.2 mECU. Land purchase for the Tax Free Zone, works, supply of equipments, T.A. and \*training. **Date financing September 90**. 6th EDF.  
EDF FIJ 6007 A5d

**Social infrastructure, schools and bridges**. Resp. Auth.: Ministry of Infrastructure and Public Utilities and Ministry of Education, Youth and Sport. 2.626 mECU. EDF 2.350 mECU, local 0.276 mECU. Construction of 11 bridges and 49 new classrooms and 45 teachers quarters. Supply of equipment and T.A. **Date financing September 90**. 6th EDF.  
EDF FIJ 6009 A6a, 8a

## GHANA

**Accra Plains Livestock Development Project (APLDP)**. Estimated total cost 4 mECU. EDF part 3 mECU, local 1 mECU. Provision of veterinary and animal husbandry extension services, including construction of cattle treatment centres, water points and other inputs. Project on appraisal. 6th EDF.  
EDF GH 6006 A3a

**Twifo oil palm development. Maintenance aid 1988-1991**. Resp. Auth.: Ministry of Finance and Economic Planning (M.F.E.P.). Total estimated cost 12.6 mECU. EDF 5 mECU, local 7.6 mECU. Works, supply of equipment and T.A. Project on appraisal. 6th EDF.  
EDF GH 6007 A3a

## GRENADA

**Levera National Park project**. Resp. Auth.: Ministry of Tourism. 0.925 mECU. Works and services comprising Park infrastructure, access roads, attractions development, management programmes, T.A. Project on appraisal. Date foreseen for financing **November 90**. 6th EDF.  
EDF GRD 6005 A5i

## GUINEA

**Rural development programme in Upper-Guinea**. Resp. Auth.: Coordination

team composed by representation from : Ministère du Plan et de la Coopération internationale, Ministère du Finances, Secrétariat d'Etat à la Décentralisation, Ministère du Dév. Rural, 30 mECU. To modernise agricultural systems and to improve the way of living. Development of the crop production, infrastructure (roads, social, rural hydraulics), micro-projects, lines of credit, T.A. and training. Supplies: int. tender launched in February 88 and July 89. Project in execution. 6th EDF.

EDF GUI 6002 A3a

**Rural development programme in Maritime-Guinea.** Resp. Auth.: Coordination team (see EDF GUI 6002). 40 mECU. Crop production and fishery, road network, social infrastructure, rural hydraulics, micro-projects, lines of credit, research actions, vulgarisation, T.A. and training. Supplies: 2 int. tenders launched in March 88. Int. tender for wells and pumps launched in October 88. 1 int. tender for equipment and vehicles launched in July 89. Project in execution. 6th EDF.

FED GUI 6001 A3a

**General import programme.** Resp. Auth.: Banque Centrale de la République de Guinée (B.C.R.G.). 12.5 mECU. Hard currency prices CIF covered by the project. Project in execution. 6th EDF.

EDF GUI 6009 A1c

**Friguia alumina plant rehabilitation project.** Resp. Auth.: Société Friguia. EDF 35 mECU, EIB 13 mECU, Friguia 30.4 mECU. Works, supply of equipment, feeder road construction. T.A. for S.M.E. **Supplies: 4 int. tenders launched.** Project in execution. 6th EDF.

EDF GUI-SYS 6010 A4a

**T.A. and supplementary equipment for the "Ecole Nationale des Arts et Métiers" (ENAM), Conakry.** Resp. Auth.: Ministère de l'Education Nationale. 5.5 mECU. Renovation works by acc. tender. Equipements by int. tender. T.A. and training. Project in execution. 6th EDF.

EDF GUI 6006 A6b

**Strengthening and monitoring of the health services in the "Guinée Forestière" (prefectures concerned by influx of refugees from Liberia).** Resp. Auth.: Ministère de la Santé Publique et de la Population. 1.2 mECU. T.A. by M.S.F. (B). Date financing October 90. 6th EDF.

EDF GUI 6104 A7a

## GUINEA BISSAU

**Rural development programme.** 23.8 mECU. Improvement of the food and fishery production, line of credit, micro-projects, T.A. and training. Project in execution. 6th EDF.

EDF GUB 6001 A3a

**General import programme.** Resp. Auth.: Unité de Gestion de Balance de Paiement auprès de la Banque Nationale. 6 mECU. Hard currencies allowance programme. Italy: 2 mECU to supply fuel and lubricants to the Bissau Power Plant during 1 year. Project in execution. 5th and 6th EDF.

EDF GUB 6005 A1c

**Project for the rehabilitation of social and economic infrastructures.** Resp. Auth.: Ministère des Travaux Publics. 8 mECU. Road rehabilitation, schools, health centres urban roads, markets, water and sanitation. Construction of secondary bridges, access roads, supply of a ferry. Works, supplies and T.A. Project on appraisal. 6th EDF.

EDF GUB 6010 A7, A8

## JAMAICA

**Rural water supplies. Phase I.** Resp. Auth.: National Water Commission. 6.7 mECU. Extension, upgrading of five existing water supply schemes: South Manchester, Elderslie/Niagara, Castleton, South Chapelton. Works and supplies. Project in execution. 6th EDF.

EDF JM 6003 A2b

**Montego Bay airport. Charter terminal.** Resp. Auth.: Airports Authority of Jamaica. 7.1 mECU. Works and supply of equipments. Works by acc. tender. Supplies by int. tender. Supervision. Project in execution. 6th EDF.

EDF JM 6004 A2d

**Negril and Ocho Rios sewerage schemes.** Resp. Auth.: National Water Commission. 25 mECU. Negril: 17 km of trunk sewers, 13 pump stations and 2 treatment plants. Ocho Rios: 5 km of sewers, 6 pump stations, 1 treatment plant and deep sea out-fall. T.A. for supervision. Works by int. tender. Project on appraisal. 5th EDF.

EDF JM A8bc

## KENYA

**Agricultural research programme.** 20 mECU. Soil and water management research. Soil fertility and plant nutrition. Civil works and libraries. Project in execution. 6th EDF.

EDF KE 6003 A3e

**Cereal sector reform programme.** Resp. Auth.: Ministry of Finance, Agriculture and Supplies and Marketing and NCPB. National Cereals and Produce Board. 65 mECU. T.A., studies, training. Storage and rolling stock, sectoral import programme purchase of agricultural inputs, short and long-term T.A., cooperatives and reserve funds. Studies, T.A. and training: short-lists already drawn-up. Works by int. tender and acc. tender. Supplies by int. tender. Project in execution. 6th EDF.

EDF KE 6008 A3a

**ASAL livestock development programme.** Resp. Auth.: Ministry of Livestock Development. 9 mECU. Works by restr. tender. Supplies by int. tender. T.A. and evaluation. Project in execution. 6th EDF.

EDF KE 6009 A3a

**Mara Conservation Project.** Resp. Auth.: Ministry of Tourism and Wildlife. 1.35 mECU. EDF part. Strengthening of the management and infrastructure of the Mara reserve. Education and training. Project in execution. 6th EDF.

EDF KE 6015 A5i

**Special debt programme.** Resp. Auth.: Director of External Resources with representative from Ministry of Finance, Commerce,

Central Bank of Kenya, the Delegate of the Commission. 2nd phase of the Agricultural Sector Import Programme (ASIP). 7 mECU. Supply of agricultural inputs by int. tender. T.A. and evaluation. Project in execution. 6th EDF.

EDF KE 6019 A3a

**Strengthening of research resources of the national museums of Kenya.** Resp. Auth.: NMK Directorate. 3 mECU. Construction, transport, equipment, T.A., training and research links with national, regional and international organizations. Project in execution. 6th EDF.

EDF KE A6f

**Strathmore post secondary educational college.** Resp. Auth.: Strathmore college. EDF 3.100 mECU, Italy 1.310 mECU. Construction of teaching and administrative buildings, library, canteen, accomodation and catering department. Supply of equipment and T.A. Works by acc. tender. T.A. and supplies by Italy. **Project in execution.** 6th EDF.

EDF KE 6005 A6b

## KIRIBATI

**Telecommunications programme.** Resp. Auth.: Telecom-Kiribati. 4.5 mECU. Supply and works relating to 2 telephone exchanges, a transmitting station and equipment for air and sea rescue services. Works, supplies and T.A. Project on appraisal. 6th EDF.

EDF KI 6003 A2c

## LESOTHO

**Manpower development project to support Lesotho's natural resources sector.** Resp. Auth.: National Manpower Development Secretariat (NMDS). Ministry of Planning Economic and Manpower Development. 7.7 mECU. Construction of schools, class-rooms, laboratories, supply of T.A., scholar-ships and training. Project in execution. 6th EDF.

EDF LSO 6007 A6b

**Queen Elizabeth II Hospital: improvement and upgrading.** Resp. Auth.: Ministry of Health and Ministry of Works. 4.9 mECU. Works by acc. tender. Supply by int. tender. T.A. Project in execution. 4th and 6th EDF.

EDF LSO 6012 A7a

## LIBERIA

**Bong Mining Company. Rehabilitation project.** Resp. Auth.: Government and BMC. 49.3 mECU. Supply of specialized equipment, shovels, conveyor belts, dumpers, locomotives, spare parts. 2 int. tender launched in July 89. Project in execution. 5th EDF.

EDF LBR/SYS 0000 A4a

**South-East development programme.** Estimated cost 27 mECU. Works, supplies and T.A. Project in execution. 6th EDF.

EDF LBR 6002 A3a

**Rural water supply. Phase II.** Resp. Auth.: Minister of Planning and Economic Affairs. 2.900 mECU. Drilling works by acc. tender. Supply of hand pumps and spare parts. T.A. Project in execution. 6th EDF.

EDF LBR 6011 A2b

## MADAGASCAR

**Maize development programme in the Middle West.** Resp. Auth.: Ministère de la Production Agricole. 9.5 mECU. Building of a nursery and farmers training. Works, supplies, T.A. evaluation and training. Project in execution. 6th EDF. EDF MAG 6006 A3a

## MALAWI

**Strategic fuel reserve.** Resp. Auth.: Office of the President and Cabinet. Contingency Planning Unit. 4.2 mECU. Construction of tanks for diesel, petrol, ethanol. Associated infrastructure and equipment. T.A. Project on appraisal. 5th EDF. EDF MAI 5020 A2a

**Rural health programme.** Resp. Auth.: Ministry of Health and Ministry of Community Services (MOH and MOCS). 9.3 mECU. Construction of an hospital, two health centres supply of equipments, T.A. Works by acc. tender. Supplies by int. tender. T.A.: short-list drawn up. 2 int. tenders for supplies launched in August 90. Project in execution. 6th EDF. EDF MAI 6009 A7a, e

**Programme for industrial products imports.** 12.5 mECU. Supply of industrial equipment, raw materials and spare parts. Project in execution. 6th EDF. EDF MAI 6019 A1c

**Nkhata Bay - Dwangwa road.** Resp. Auth.: Ministry of Works. Road construction. 35.400 mECU. EDF part 20 mECU, Germany (KfW) 15.400 mECU. *Project in execution.* 5th and 6th EDF. EDF MAI 6024 A2d

## MALI

**Rice-growing intensification programme in the large irrigated areas of "Office du Niger" and "Opération Riz Segou".** Resp. Auth.: Ministère de l'Agriculture. 65 mECU. Improvement of the irrigated areas, roads. Supply of equipment for maintenance and for agriculture, study, T.A., training and experimentation. Study: short-list done. Project in execution. 5th and 6th EDF. EDF MLI 6004 A3a

**Food security programme in the 5th region.** Resp. Auth.: Gouverneur de la région. 24 mECU. Soil and ground water resources, rehabilitation of Bamako. Mopti road. Works, supplies, supervision, study, T.A. training. Supplies: int. tender launched in July 89. Works: int. tender launched in March 90. Project in execution. 5th and 6th EDF. EDF MLI 6005 A2b, d

## MAURITANIA

**Aiou 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

**Rehabilitation of Nouakchott National Hospital.** Resp. Auth.: Ministère de l'Équipement. 4 mECU. Renovation and upgrading for building, supply of medical-

technical and surgical equipment. Project on appraisal. 6th EDF. EDF MAU 6003 A7a

**Support programme for the development of the Gorgol region (PDRG).** Estimated cost 35 mECU. Improvement of the irrigated areas, support to the traditional crop, regeneration of the natural habitats, rural infrastructure, sanitation of Kaedi. Project in execution. 6th EDF. EDF MAU 6007 A3a

**General import programme.** Resp. Auth.: Ministère de l'Économie et des Finances. Banque Centrale de Mauritanie (BCM). 7 mECU. Hard currency allowance for essential goods imports. Project in execution. 5th and 6th EDF. EDF MAU 6008 A1c

## MAURITIUS

**Programme to diversify productive sectors (2nd part: agriculture).** Resp. Auth.: to purchase equipments: Ministère des Finances. Tender board. 8 mECU. Works, rural development, supplies, T.A. and training. Project in execution. Int. tender launched in November 89. 6th EDF. EDF MAS 6006 A3a

**National derocking scheme.** Resp. Auth.: Ministry of Agriculture and Sugar Planters Mechanical Pool Corporation (SPMPC). 3 mECU. Purchase of tractors: ★2 tractors (300 HP and 215 HP) and 10 tractors (165 HP) with plate, rakes and rippers. Two hydraulic arm trucks (5 t) and 1 lorry yard (60 t). Spare parts and workshop equipments (lathe, press, and welding machine). Works and T.A. and training. *Date financing September 90.* 6th EDF. EDF MAS 6004 A3a

## MOZAMBIQUE

**Second import programme.** Resp. Auth.: UCPI (Unité de Coordination des Programmes d'Importation et Délégation de la Commission. 30 mECU. Sectors: rural, fishery, transports and industry. Supply of seeds, equipments, row materials, lorries, spare parts, T.A. audit and valuation. 4 int. tenders launched from August 89. Project in execution. 6th EDF. EDF MOZ 6025 A1c

**Rural telecommunications.** Resp. Auth.: Ministry of Transports and Communications. Estimated cost 5 mECU. Supply of radio and telephone equipment. Technical study for project appraisal to be done: short list drawn up. Project on appraisal. 6th EDF. EDF MOZ 6021 A2c

**Integrated development programme of Cabodelgado.** Resp. Auth.: Ministry of Commerce. AGRICOM. 8 mECU. EDF 5 mECU, local 3 mECU. Support to ±50 000 people in the districts of Mocimboa, Praia and Mueda. Works, supplies and T.A. Project in execution. 6th EDF. EDF MOZ 6022 A3a

**Displaced persons. Assistance programme.** Contribution to different NGO's for institutional support, health activities, water supplies agriculture. UNDR0, CARE, MSF (H, F, B), Marins SF, Eduardo Mondlane

Stichting Zambezia, Oxfam Belgique, World Vision Zambezia, Cooperation and Development. 12.743 mECU. Project in execution. 6th EDF. EDF MOZ 6104 A8

## NIGER

**Rice-growing in the river valley.** Resp. Auth.: Ministère de l'Agriculture. 63.6 mECU. Cultivation of 1,800 ha, electrification, feeder roads, T.A. for management. Project in execution. 6th EDF. EDR NIR 6001 A3a

**Small irrigation programme.** Resp. Auth.: Ministère de l'Agriculture. 21.560 mECU. Rehabilitation of the Tarka down valley, irrigation, boreholes and wells. Feeder roads, environmental protection, T.A. Works and supplies. First tender launched in July 90. Project in execution. 6th EDF. EDF NIR 6002 A3a

**Mining research: gold and coal.** Resp. Auth.: Ministère des Mines et de l'Énergie. 12.450 mECU. Gold: photogeological and photomorphological study on existing aerial photos. Revision of all available data. Strategic prospecting. Site exploration and pilot plant. Coal: study and building of a washing plant. Study on the coal field of Anou Araren-Solomi. T.A. and training. Drillings by int. tender. Supplies by int. tender. Project in execution. First tender launched in July 90. 6th EDF. EDF-SYS-NIR 6011 A4a

**Training programme.** Resp. Auth.: Ministère de l'Éducation, Commerce, Culture, Plan, Agriculture. 4.366 mECU. Three priority sectors: rural development, business development, cultural development. Supply of equipments, T.A. and scholarships. Project in execution. 6th EDF. EDF NIR 6101 A6b, c, i

## NIGERIA

**Oil Palm Belt Rural Development Programme (OPBP).** Resp. Auth.: Ministry of Agriculture, Water Resources and Rural Development. 68.840 mECU. Flood protection and drainage works in the Niger Delta. - 20 000 ha. Rural infrastructures, micro-projects, T.A., training, research, supervision of works, management. Project in execution. 6th EDF. EDF UNI 6001 A3a

**North East Arid Zone development programme.** Resp. Auth.: Ministry of Agriculture. 35 mECU. Increase of rural production, livestock development, afforestation and environment control, rural infrastructure development (health, education), commercial services (inputs, credit and marketing system), manpower development, training and research. Works: irrigation, drainage, buildings, supply of seeds, chemicals, fertilizers, dozers, drilling rigs, T.A., training, research. Project in execution. 6th EDF. EDF UNI 6002 A3a

**Research and Training programme.** Resp. Auth.: Ministry of Finance and Economic Development. Training Support Unit (TSU). 30 mECU. Scholarships, seminars, T.A. Teacher training, cooperation between

Nigerian Training Institutions and European Training Institutions, exchanges between Nigerian and European research institutions. Purchase of equipment. Project in execution. 6th EDF.  
EDF UNI 6004 A6a, b, c, d, e, f

**Desertification control and environmental protection programme in Sokoto.** Resp. Auth.: Sekoto Environmental Programme (SEP). Direct responsibility of the Office of the Governor. 30.6 mECU. Community awareness, mobilisation and development campaign. Afforestation actions, improvement of range management and livestock development. Rehabilitation of a small-scale irrigation, training and applied research. Works: buildings, nurseries, water points, irrigation networks. Supply of vehicles, motorcycles, generators, media equipments, T.A. Works by acc. tenders. Supplies by int. tenders. Project in execution. 6th EDF.  
EDF UNI 6003 A3a

**Sectoral import programme.** 10 mECU. Supply of pumps, agricultural inputs, spare parts for tractors and metal frame for warehouses. Project in execution. 6th EDF.  
EDF UNI 6008 A3a

**"Middle belt" programme.** Resp. Auth.: States of Kwara and Niger, Executive Committees. Estimated total cost 38,662 mECU. EDF 33 mECU, local 5,662 mECU. Education, health, social infrastructure. Renovation works, rehabilitation, supply of equipments, T.A., training and evaluation. Project in execution. 6th EDF.  
EDF UNI 6007 Aabe

**Assistance to Nigerian Research Institute FIIRO (FIIRO II).** Resp. Auth.: Federal Ministry of Finance and Economic Development. 1.2 mECU. T.A. and equipments. Supplies: int. tender launched in July 90. Project in execution. 5th EDF.  
EDF UNI 4003 A6f

## PAPUA NEW GUINEA

**Human resources development programme.** Resp. Auth.: Department of Personnel Management. 1.850 mECU. Training programmes all levels in the country and abroad. Sectors: rural development and agriculture, harbours, mineral resources, management. Project in execution. 6th EDF.  
EDF PNG 6008 A6bd

**Sectoral import programme.** Resp. Auth.: The Bank of Papua New Guinea. EC Delegation. 5.5 mECU. Hard currency facility type to finance machinery and transport equipment for rural sector, chemicals and manufactured goods. T.A. for project coordination (procurement agent). **Date financing October 90.** 6th EDF.  
EDF PNG 6013 A3a

## RWANDA

**Food strategy support programme.** Resp. Auth.: Ministère du Plan. 51 mECU. Development of the rural activity, monitoring, training, maintaining of natural environment stability. Infrastructures, supply of agricultural inputs, vehicles, T.A. studies and training. 2nd int. tender launched in July 90. Project in execution. 6th EDF.  
EDF RW 6001 A3a

## SAO TOMÉ & PRINCIPE

**Riberia Peixe rural development.** Resp. auth.: Ministère de la Coopération. Development of agricultural output (palm oil) and industrial exploitation. 6.79 mECU as follows: EDF 4.00 mECU, EIB 2.00 mECU and local 0.791 mECU. T.A., works, training and supplies. T.A.: Short-list done. Project in execution. 6th EDF.  
EDF STP 6001 A3a

## SENEGAL

**Consolidation of the livestock development programme.** Resp. Auth.: SOD-ESP. Estimated cost 1.6 mECU. Study under way by Bessel Ass. (UK). Project on appraisal. 5th EDF.  
EDF SE A3a

**Support to the Sectoral Import Programme for transports. Road rehabilitation. Part A.** Resp. Auth.: Ministère de l'Équipement. EDF part **6.250 mECU.** Rehabilitation of the Thiès-Mekhe national road n° 2. Part A lot 1: 48.7 km. Works by int. tender. Project on appraisal. **Date foreseen for financing December 90.** 5th EDF.  
EDF SE 5046 A2d

**Support programme for repatriation from Mauritania.** Resp. Auth.: DIRE (Délégation à l'Insertion à la Réinsertion et à l'Emploi). EDF **2.1 mECU.** Line of credits, for existing SME and new SME. T.A. and training. **Date financing September 90.** 6th EDF.  
EDF SE 6104 A8b

**Support programme for the phosphate sector. Sysmin.** Resp. Auth.: Ministère du Développement Industriel. 15 mECU. Research for methods to eliminate cadmium from rock and/or from phosphoric acid. Investments in 2 processing plants. Research actions, studies, new humid storage (central conveyor, adjustable stocker, rail scraper, longitudinal conveyor), mining equipment, 3 dumpers, 1 bull-dozer, 2 loaders, 1 hydraulic shovel. Project on appraisal. **Date foreseen for financing November 90.** 6th EDF.  
EDF SYS SE 17 A4af

## SEYCHELLES

**Rural development project.** Resp. Auth.: Ministry of Nat. Dev. 2.922 mECU. Support to small farms, research, soil improvement. Cofinancing with Italy. Works, T.A. and training. Supplies: int. tender launched in June 90. Project in execution. 6th EDF.  
EDF SEY 6004 A3a

**National cultural centre.** Resp. Auth.: Ministère de l'Éducation, Information. Estimated total cost 5 mECU. EDF part 1 mECU. Project on appraisal. 6th EDF.  
EDF SEY 6006 A6hij

## SIERRA LEONE

**North Western artisanal fisheries and community development programme.** Resp. Auth.: Ministry for Agriculture and Natural Resources (Fisheries Division). 6 mECU.

Infrastructures, supply of equipments, line of credit. T.A. Project in execution. 6th EDF.  
EDF SL 6004 A3d

**Rehabilitation of the Telecommunications network. Phase 2.** 7.5 mECU. Works, supplies and T.A. Project in execution. 6th EDF.  
EDF SL 6006 A2c

**Tourism development programme.** Estimated cost 0.850 mECU. T.A. to the Ministry of Tourism and supply of equipment. Project stage: identification. 5th EDF.  
EDF SL 5026 A5c

**Sectoral Import Programme. Agriculture.** Resp. Auth.: SIP Steering Committee: Nat. Auth. Off. (NAO), EEC Delegation and the Ministry of Agriculture and National Resources. 6 mECU. Supply of agricultural inputs, machinery, spares, for agricultural processing, fishing equipment, T.A. (procurement agent): management and evaluation. **★ Short-list done. Project in execution.** 6th EDF.  
EDF SL 6002 A3a

**Construction of the Waterloo-Maziaka road.** Resp. Auth.: Ministry of Works. Estimated cost 14 mECU. Road reconstruction with bitumen layer of 50 mm. T.A. for supervision. Project on appraisal. 6th EDF.  
EDF SL 6007 A2d

## SOLOMON ISLANDS

**Development of human resources in the rural sector.** Resp. Auth.: Ministry of Economic Planning. 4 mECU. Supply of equipment, T.A. and training. Project in execution. 6th EDF.  
EDF SOL 6003 A3a

**Rural health project.** Resp. Auth.: Ministry of Health and Medical Service. 3 mECU. Works by acc. tender. Supply of equipment by int. tender. T.A. Project in execution. 6th EDF.  
EDF SOL 6007 A7a

## 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 1991. Equipment: powerhouse main equipment and auxiliary equipment, int. tenders in 1991. Gates, valves, intake equipment, int. tender in 1991. Int. tender with prequalification launched in February 86 for hydraulic tests. Project in execution. 5th EDF.  
EDF SO 5003 A2a

**Old Mogadishu port rehabilitation.** Resp. Auth.: Somali Port Authority (SPA). 14.5 mECU. Works by int. tender. T.A. and supervision. Project on appraisal. Date foreseen for financing 2nd half 90. 6th EDF. EDF SO 6005 A2d

**National Museum Rehabilitation.** Resp. Auth.: Somali Engineering Agency. Dept. of the Ministry of Works and Housing. Total estimated cost 0.650 mECU. EDF 0.500 mECU, Germany 0.040 mECU, local 0.110 mECU. Restoration of the former Sultan Ben Ahmed Palace built in 1872. Works by restricted tendering procedures addressed to preselected and well qualified companies. Project on appraisal. Date foreseen for financing 2nd half 90. 6th EDF. EDF SO 6015 A8i

## SUDAN

**Sudan Railways Support Programme (SRSP).** Resp. Auth.: Sudan Railways Corporation. 19 mECU. Reconstruction of five major and 18 minor bridges and 7 culverts in the line Kosti-Babanaousa. Supply of materials, tools and replacement part, for the most immediate repairs and maintenance of the track Khartoum-Port Sudan and those required for a direct improvement of telecommunications. Works and supplies by int. tender. Project in execution. 5th and 6th EDF. EDF SU 6011 A2d

**Post Flood Reconstruction and Rehabilitation Programme (PFRRP).** Resp. Auth.: agricultural part: Agricultural Bank of Sudan. Transport infrastructure: Roads and Bridge Public Corporation (RBPC) and Sudan Railways Corporation. 15 mECU. Agricultural sector: supply of spare parts for repair and replacement of 2 500 pumps. Int. tender and direct agreement. Supply of maintenance parts for 100 trucks (6t): by int. tender. Supply of 100 pumps by int. tender. T.A. for repair, control and credit allowances. Transport sector: bridge construction (5 x 25 m) at Geneina, repair and work supervision. Bridge by acc. tender. Supplies for railways, gabions, pipes by int. tender. Project in execution. 6th EDF. EDF SU 6020 A2d

**Dubeibat-Dilling road.** Resp. Auth.: Roads and Bridges Public Corporation. 16.5 mECU. Reconstruction and widening over 60 km including construction of bridges and culverts. Works by int. tender. T.A. for supervision. Project on appraisal. 6th EDF. EDF SU 6006 A2d

## SWAZILAND

**Rural water supplies programme.** Ministry of Natural Resources. 2.6 mECU. Works and supply of equipment for village drinking water supply scheme. Project in execution. 6th EDF. EDF SW 6008 A3a

**Human resources development programme.** Resp. Auth.: Ministry of Education. 8 mECU. Works and supply of educational equipment, T.A. and training. Int. tender launched in July 89. Project in execution. 6th EDF. EDF SW 6010 A6a, b

**Rural dam rehabilitation programme.** Resp. Auth.: Ministry of Agriculture. 4mECU. Works and supervision. Project in execution. 6th EDF. EDF SW 6012 A3a

## TANZANIA

**Agricultural sector support programme.** Resp. Auth.: Ministry of Finance and Plan-ning. 94 mECU. Measures to improve food security, support for coffee production and processing, assistance to co-operative unions, repair and maintenance of vehicles and tractors, feeder road maintenance and assistance to institutions implementing the programme. Supplies by int. tender/restr. tender or direct agreement. Project in execution. 6th EDF. EDF TA 6001 A3a

**Secondary roads improvement project. 16 mECU.** Repair and rehabilitation works on Songea-Mbinga and Iboma-Mlangali-Madaba secondary roads to improve transport of agricultural produce. Roads and bridges. Project on appraisal. 2 int. tenders (conditional) launched in August 90. *Date foreseen for financing December 90.* 6th EDF. EDF TA 6007 A2d

**Conservation of historical buildings.** 0.700 mECU Restoration works. Forts Bagamoyo and Zanzibar. Project on appraisal. 6th EDF. EDF TA 6015 A5i

**Livestock service development.** Resp. Auth.: Ministry of Agriculture and Livestock Dept. Estimated total cost 4.2 mECU. EDF 3.7 mECU, local 0.500 mECU. Construction of low-cost houses, vaccination campaign, credit lines, T.A. Project on appraisal. Date foreseen for financing October 90. 5th EDF. EDF TA 5020 A3a

## TOGO

**Support to the draught animals cultivation.** Resp. Auth.: Ministère du Développement Rural. EDF 5.47 mECU. Extension of the Adélé ranch, introduction of new techniques, line of credit. Works: feeder roads, bridges, wells, housing. Supply of vehicles, equipments, veterinary products, T.A. and training, research. Project in execution. 6th EDF. EDF TO 6005 A3a

**Rural development programme in Bas-sar.** Resp. Auth.: Ministère du Dév. Rural. EDF 10.3 mECU. Rural intensification and diversification, soil protection, improvement of infrastructure, support to the small-farmer association, marketing improvement. Works, studies, research, evaluation. Project in execution. 6th EDF. EDF TO 6006 A3a

**Support programme to the phosphate mining industry.** Resp. Auth.: Office Togolais des Phosphates (OTP). 15.7 mECU. Research actions on cadmium problems. Purchase of drying machines and shovels. Project in execution. 6th EDF. EDF TO-SYS 6015 A4a

**Rural hydraulics in the Savanes and Kara regions.** Resp. Auth.: Ministère de

l'Équipement. 2.475 mECU. Weels and sources assessment. Supply and installation of ★200 pumps. Supervision of works. *Project in execution.* 6th EDF. EDF TO 6010 A3a

## TONGA

**Vava'u Airport Development Project.** Resp. Auth.: Ministry of Civil Aviation. 2.130 mECU. Works, supply of equipment and training. Works by direct labour, supplies by int. tender. Project on appraisal. 5th and 6th EDF. EDF TG 5003-6001 A2d

**VAVAU development programme.** Resp. Auth.: Vava'u Committee. 5 mECU. Construction of new market, road improvement and maintenance, education and health ★facilities, training. Project on appraisal. *Date foreseen for financing November 90.* 6th EDF. EDF TG 6002 A8b

## TRINIDAD AND TOBAGO

**Sectoral import programme: industry.** 12 mECU. Allocation of currencies to import raw materials and intermediate products. Project in execution. 6th EDF. EDF TR 6002 A4b

## UGANDA

**Farming systems support programme.** Resp. Auth.: Ministry of Agriculture. 13 mECU. Purchase of farming inputs, and vehicles, machinery and research equipment. Training and T.A. including management support, studies and mid-term evaluation. Works by acc. tender. Supplies by int. tender. Project in execution. 6th EDF. EDF UG 6007 A3a

**Training programme.** Resp. Auth.: Ministry of Planning and Economic Development. 1.5 mECU. T.A. for training, scholarships, supply of equipment. Project in execution. 6th EDF. EDF UG 6101 A6b

## WESTERN SAMOA

**Afulilo hydro power project.** 18 mECU. EDF part 8.189 mECU. Construction of a dam, reservoir, penstock, 4 MW power station, 40 km transmission lines, T.A. and training. Cofinancing with EIB, IDA and Asian Dev. Bank. Int. tender launched in March 89. ★*Project in execution.* 6th EDF. EDF WSO 6001 A2a

## ZAIRE

**Kivu programme.** 40 mECU. Action for crops (coffee, corn, palm-tree, rice) environment (Parc de la Virunga), lines of credit. 1st int. tender launched in April 89. Project in execution. 6th EDF. EDF ZR 6002 A3a

**Kinshasa hinterland programme.** APEK 25 mECU. To improve crop production. 1st int. tender launched in July 89. Project in execution. 6th EDF. EDF ZR 6003 A3a



**Rehabilitation programme of SNCZ.** 7.5 mECU. Supply of row materials and spares to replace railways system. Project in execution. 6th EDF. EDF ZR 6017 A4a

## ZAMBIA

**Smallholder development in copper belt province.** Resp. Auth.: Ministry of Agriculture and water development. 12 mECU. Basic infrastructure by acc. tender. Supply of vehicles and materials by int. tender. T.A. Project in execution. 6th EDF. EDF ZA 6004 A3a

**Smallholder development in central province.** Resp. Auth.: Ministry of Agriculture and water development. 12.35 mECU. Basic infrastructure and social facilities. Works, supplies and T.A. Project in execution. 6th EDF. EDF ZA 6005 A3a

**Import programme and special debt programme.** Resp. Auth.: Ministry of Finance, Bank of Zambia, Export Board, EEC Delegation. 20 mECU. Purchase of inputs, raw materials, spare parts and equipments for productive sectors, agriculture, health and transports. T.A. and evaluation. Project in execution. 5th and 6th EDF. EDF ZA 6016 A1c

**Lusaka-Kabwe road.** Resp. Auth.: Roads Dept Road rehabilitation. 134 km. Estimated cost 36 mECU. Possibility of an int. tender for works (conditional) in the 1st quarter 91. Project on appraisal. 6th and 7th EDF. EDF ZA A2d

## ZIMBABWE

**Small scale irrigation programme.** Resp. Auth.: Agritex Irrigation Division. 14 mECU. Irrigation works over 700 ha. Supply of vehicles and equipments. T.A., training, studies. Int. tender launched in July 90. Project in execution. 6th EDF. EDF ZIM 6010 A3e

**Tourism development programme.** Resp. Auth.: Ministry of Natural Resources and Tourism. 3.6 mECU. EDF part. T.A. studies, marketing. Project in execution. 6th EDF. EDF ZIM 6008 A5c

**Human resources development programme.** Resp. Auth.: Ministry of National Scholarships. 3.4 mECU. T.A. and scholarships, awards, seminars. Project in execution. 6th EDF. EDF ZIM 6020 A6

## Overseas Countries and Territories (OCT)

### ANGUILLA

**Anguilla road improvement.** Resp. Auth.: Ministry of Communication, Works and Public Utilities. Estimated total cost 2.606 mECU. EDF 2.466 mECU, local 0.200 mECU.

Improvement of 8 road sections. 5.25 km. Project on appraisal. Date foreseen for financing November 90. 6th EDF. EDF AG 6001 A2d

## NETHERLANDS ANTILLES

**Tourism development programme.** Resp. Auth.: Ministry of Development Cooperation. 19.15 mECU. Programme for 5 islands. Optimal use of tourism potential. T.A., training, promotion and investments in tourism infrastructures. Works, supplies, T.A., training. Project on appraisal. Date foreseen for financing November 90. 6th EDF. EDF NEA 6007 A5c

**Business development scheme.** 1.5 mECU. T.A. for marketing, management, product, company and strategy development. T.A. and training. Project in execution. 6th EDF. EDF NEA 6013 A5c

## ARUBA

**airport extension.** Extension of airport facilities. Apron, taxiway, new arrival building, car park, access roads, platform buses, fencing, security peripheral road, technical studies. Estimated cost 33.5 mECU. EDF 6.210 mECU, The Netherlands ±24 mECU, private sector 3.290 mECU. Works, supplies and T.A. (final design, tender dossier, supervision). Project on appraisal. 6th EDF. EDF ARU 6003 A2d

## FRENCH POLYNESIA

**Deep-sea fishing fleet.** EDF part 1.420 mECU. Purchase of 3 fishing boat for tuna. 24 m. Training and T.A. Purchase by int. tender. Project in execution. 6th EDF. EDF POF 6002 A3d

## NEW CALEDONIA

**Rural development programme.** Resp. Auth.: Administration Territoriale. 2.078 mECU. Poum and Ouegoa water supply. Aquaculture, sea-shrimps, artisanal fishery. Works and supplies. Project in execution. 6th EDF. EDF NC 6004 A2b, A3d

**Norcal study.** Estimated total cost 1.440 mECU. EDF 0.800 mECU, Territoire 0.440 mECU, COFREMMI (local) 0.200 mECU. Re-updating of an existing study about nickel production. This study will be executed by the former consultant in charge with the previous study. Impact study on environment financed by EDF: short-list not yet done. Date financing September 90. 6th EDF. EDF NC 6005 A4a

## ST. PIERRE AND MIQUELON

**Equipping of the St. Pierre port.** Resp. Auth.: Direction de l'Equipement. Estimated total cost 5.5 mECU. EDF 2.6 mECU, France and territorial collectivities 2.9 mECU. EDF part: works. Quay and platform. Project on appraisal. 6th EDF. EDF SPM 6001 A2d

## BRITISH VIRGIN ISLANDS

**Improvement and extension of the water supply system.** Resp. Auth.: Water and Sewerage Department. EDF 2 mECU. Works by direct labour. Supply of transmission and distribution mains, reservoirs and infiltration trenches with pumps. Int. tender (conditional) launched in March 90. Project on appraisal. Date foreseen for financing November 90 6th EDF. EDF VI 6002 A2b

## FALKLAND ISLANDS

**Agricultural grants scheme.** Resp. Auth.: Falkland Islands Development Corporation (FIDC). 1.557 mECU. Int. tender launched in October 90. Project in execution. 4th, 5th and 6th EDF. EDF FK 6001 A3a

## ST. HELENA

**Sea defences.** Resp. Auth.: Public Works and Services Dept. 3 mECU. 2,5 mECU EDF, 0,500 mECU UK. To protect shore facilities at James and Rupert's Bay. Rehabilitation and reinforcement of existing sea walls. Project in execution. 5th and 6th EDF. EDF SH 5001 A8g

## Regional Projects

### GUINEA — GUINEA BISSAU — SENEGAL — MAURITANIA — NIGER — MALI

**Soil development of the versant basin type in Guinea: Fouta Djallon and Niger Upper Basin.** Resp. Auth.: Ministère Guinéen de l'Agriculture et des Ressources Animales (MARA), Direction Générale des Forêts. Estimated total cost 37.5 mECU. EDF 31.5 mECU, Italy 6 mECU. Anti-erosion works, technical and social infrastructure with local NGO's and population. Preparatory studies for programme extension, aerial survey and mapping. Works by acc. tender. Supplies by int. tender. T.A. and training. Project in execution. 6th EDF. EDF REG 6137 A3a

### BURKINA — NIGER

**Timber development in the future reservoir of the Kompienga Dam.** Resp. Auth.: Ministère de l'Environnement du Burkina. EDF 5.9 mECU. Timber trees recuperation and processing to obtain building and service timber, fuel-wood, charcoal for their commercialisation. Works, supply of equipment and T.A. Project in execution. 6th EDF. EDF REG 6102 A3c

### NIGER — MALI

**Tillabery-Gao road. Studies and urgent works.** Resp. Auth.: Works in Niger: Direction des Travaux Publics, Niamey. Works in Mali: Direction des Travaux Publics in Bamako. 5.260 mECU. Works in Niger by acc.

tender, works in Mali by direct labour. Studies: short-list not yet done. **Date financing September 90.** 6th EDF.  
EDF REG 6161 A2d

#### BENIN — BURKINA — NIGER

**Regional road Godomey Bohicon.** 15 mECU. Maintenance for Cotonou to Niamey and Ouagadougou on the Godamey Bohicon part. Supervision of works: short-list to be done. Project on appraisal. 6th EDF.  
EDF REG 6158 A2d

**Regional project for the management of the "W" national park and adjoining game reserves.** Estimated total cost 10.200 mECU. To establish 3 management units and 10 bridges and 20 observation posts with their equipment. Building and rehabilitation of administrative, technical and social buildings, tracks and bridges. T.A., training and studies. Project on appraisal. 6th EDF.  
EDF REG 6122 A5i, A8f

#### INDIAN OCEAN ACP COUNTRIES

**Assistance to the cardiology regional centres.** Resp. Auth.: COI and Ministry of Health in Mauritius. 1 mECU. To purchase by int. tender medical equipment. Project on appraisal. Date foreseen for financing 2nd half 90. 6th EDF.  
EDF REG A7a

**Regional programme of meteorological cooperation concerning tropical hurricanes.** Resp. Auth.: Madagascar as Regional Authorizing Officer. 5 mECU. Purchase of specialised equipment by int. tender. T.A. and training. Project in execution. 6th EDF.  
EDF REG 6508 A2e

#### PACIFIC ACP COUNTRIES

**Regional telecommunications.** Resp. Auth.: SPEC. 5.550 mECU. Coastal radio stations, earth satellite stations, T.A., training. Equipments by int. tender. Works by int. tender and direct agreement. 2 int. tenders launched in July 90. Project in execution. 6th EDF.  
EDF REG 6705 A2c

**Regional tourism development programme. Phase II.** Resp. Auth.: SPEC and TCSP. Development of tourism and tourism related sectors of the Pacific ACP States and OCTs. 7.4 mECU. Works: implementation of programme components, supply of films, promotion and teaching materials, T.A., support for TCSP and project. Project in execution. 6th EDF.  
EDF REG 6027 A5c

#### MEMBER COUNTRIES OF CILSS

**Regional programme to promote the use of butane gas.** Resp. Auth.: CILSS 8.260 mECU. To substitute wood and charcoal. Actions to inform, to make aware, to promote LPG (Liquid Petrol Gas). Financial aid to reduce costs. Stocks for gas cylinders (3 and 6 kg). Gas fund in each country. Support to improve ovens and supporting plates, purchase of rail tanks, T.A. Rail tanks by int. tender. Project in execution. 6th EDF.  
EDF REG 6106 A3a

**Regional programme for soil protection and reforestation.** Resp. Auth.: Ministère du Dév. Rural et de la Pêche du Cap Vert. 4.250 mECU. Works, training, supply of equipments and T.A. Project in execution. 6th EDF.  
EDF REG 6145 A3e

**Information and training programme on environment.** Resp. Auth.: CILSS Secrétariat. 10 mECU. Supply of pedagogical equipment, T.A. and training. Project in execution. 6th EDF.  
EDF REG 6147 A8f

#### CENTRAL AFRICAN COUNTRIES AND ANGOLA — ZAMBIA — RWANDA — COMOROS

**Development of the regional cultural cooperation in the Bantu world.** Resp. Auth.: CICIBA (Gabon). 5.6 mECU. Actions to collect and use knowledge and know-how, cooperation pilot projects with cultural specialists, support actions to artists and shows. Project in execution. 6th EDF.  
EDF REG 6079 A8i

#### 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

**Institutional support to Eastern and Southern Africa Management Institute (ESAMI).** Resp. Auth.: ESAMI, Tanzania. Estimated cost 4.5 mECU. Extension of ESAMI installations plus provision of library, audio visual and printing equipment and improvement of kitchen and laundry facilities. Project on appraisal. 6th EDF.  
EDF REG 6311 A6b

#### IGADD COUNTRIES

**T.A. for a fight against desertification strategy.** Resp. Auth.: IGADD. Supply of specialised T.A. Project on appraisal. 5th EDF.  
EDF REG 5361 A3a

#### BURUNDI — RWANDA — ZAIRE

**Institutional support to the: "Institut de Recherche Agronomique et Zootechnique (IRAZ) at Gitega, Burundi.** Resp. Auth.: IRAZ and Ministère des Travaux Publics, Burundi. EDF part 2.430 mECU. Building of administrative and research complex. Works by int. tender foreseen in 90. Project in execution. 6th EDF.  
EDF REG 6318 A1a

#### MEMBER COUNTRIES OF ECOWAS AND CEAO

**Automatic processing of trade statistics and customs data.** Resp. Auth.: Secrétariat Exécutif de la CEDEAO. Directeur général du Fonds de la CEDEAO. 5 mECU. Supply of equipment and T.A. Project in execution. 6th EDF.  
EDF REG 6163 A1bcef

#### BURUNDI — RWANDA — TANZANIA — UGANDA — ZAIRE — KENYA

**Northern Corridor-Rwanda. Rehabilitation of the road Kigali-Butare Burundi border.** Resp. Auth.: Ministère des Travaux Publics. Estimated cost 20 mECU. Project on appraisal. 6th EDF.  
EDF REG 6310 (RW....) A2d

**Block trains (Tanzania Railways Corporation, TRG).** Resp. Auth.: TRC. 36 mECU. Provision of main line and shunting locomotives and wagons. Project in execution. 6th EDF.  
EDF REG 6313 (TA....) A2d

**Northern corridor alternative. Kericho-Isebania road Kenya.** Resp. Auth.: Ministry of Transports and Communication, Kenya. 13 mECU. Rehabilitation of bitumized road of 170 km in the Victoria lake region. Project on appraisal. 6th EDF.  
EDF REG 6315 (KE) A2d

**Improvement of Burundi access to the central corridor.** Resp. Auth.: National Authority Officer, Burundi. 10 mECU. Road construction. First part: 27 km. Muyinga-Tanzania border. Works by int. tender. Project on appraisal. 6th EDF.  
EDF REG 6317 A2d

#### KENYA — ETHIOPIA

**Isiolo-Moyale road. Preparatory studies.** Resp. Auth.: Ministry of Public Works, Kenya. Estimated cost 2.080 mECU. Separate economic feasibility and engineering studies. Project on appraisal. 6th EDF.  
EDF REG 6324 A2d

#### SOMALIA — DJIBOUTI

**Djibouti-Zeila (Somalia) road.** Resp. Auth.: Ministère and Ministry of Public Works. Estimated cost 28 mECU. Construction of a road between Djibouti town and Zeila town in Somalia. Int. tender (conditional) launched in May 89. Project on appraisal. Date foreseen for financing 2nd half 90. 6th EDF.  
EDF REG 6301 A2d

#### TANZANIA — MALAWI

**Ibanda-Uyole road.** Resp. Auth.: Ministry of Communications and Works, Dar Es Salaam. Estimated total cost 25 mECU. EDF 15 mECU, The Netherlands 10 mECU. Rehabilitation works of existing bitumen road. Project on appraisal. 6th EDF.  
EDF REG 6402 A2d

#### NIGERIA — GHANA — SENEGAL — MALI — BURKINA FASO — BENIN — CAMEROON — NIGER

**Support to regional centre for training in aerospace survey (RECTAS).** Resp. Auth.: RECTAS. Estimated total cost 7.030 mECU. EDF 3 mECU, France 1.5 mECU, The Netherlands 0.430 mECU, RECTAS 1.7 mECU, Swiss/UNDP 0.400 mECU. Trainers training, T.A. supply of equipment. Project in execution. 6th EDF.

★EDF REG 6166 A6b, A8f

**CAMEROON — CONGO —  
GABON — CENTR. AFR. REP. —  
EQUAT. GUINEA —  
SAO TOME AND PRINCIPE — ZAIRE**

**Conservation and rational utilization of the forest ecosystems in Central Africa.** 24 mECU. Buildings, tracks, bridges, supply of equipment, T.A. and training. *Pre-qualification launched in October 90. Date financing September 90.* 6th EDF. EDF REG 6203 A3a

**SADCC**

**Maseru Container Terminal.** Resp. Auth.: Government of Lesotho 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

**Mananga: agricultural management training.** Resp. Auth.: Mananga Agricultural Management Centre (MAMC). 1.6 mECU. Supply of T.A. Project in execution. 6th EDF. EDF REG 6425 A6ci

**ANGOLA — MOZAMBIQUE — SADCC**

**Training of railways staff.** Resp. Auth.: Ministry of Commerce. 7.3 mECU. Training of Inhambane school and in the Northern regional centres, Southern and Central. Project in execution. 6th EDF. EDF REG 6409 A6d

**SADCC — ANGOLA**

**T.A. for the Office of the Lobito Corridor (Project Coordination Unit).** Resp. Auth.: Ministère des Transports et Communications. 2.400 mECU. T.A. in 2 phases. Supply of equipment. Project on appraisal. Date foreseen for financing December 90. 6th EDF. EDF REG 6423 A2d

**SADCC — MOZAMBIQUE**

**Limpopo line rehabilitation.** Resp. Auth.: Mozambique Ministry of Transports. EDF part estimated 15 mECU. Community contribution to an overall rehabilitation programme for the Limpopo railway line. Project on appraisal. 6th EDF. EDF REG 6421 A2d

**Beira port contract dredging.** Resp. Auth.: Ministry of Construction and Water. Estimated cost 9 mECU. Dredging for two years of the access channel to the port of Beira. Works: 2 years, 4 million m<sup>3</sup>/year. Supervision and training. Project on appraisal. 6th EDF. EDF REG 6401 A2d

**ASECNA**

**Regional air safety training schools at Douala and Niamey.** Resp. Auth.: ASECNA. 7 mECU. Building and equipping of schools in Douala and Niamey. Works and equipments by int. tender. T.A. Project in execution. 6th EDF. EDF REG 6057 A6d

**CARIBBEAN ACP COUNTRIES  
AND MONTSERRAT**

**West Indies university.** Resp. Auth.: UWI and National Authorising Officers. 6.2 mECU. Renovation and rehabilitation works, supply of technical and scientific equipment, T.A. and training. Project in execution. 6th EDF. EDF REG 6601 A6b

**CARDI (Caribbean Agricultural Research and Development Institute). Technology transfer and applied research programme.** Resp. Auth.: CARDI. EDF 5.3 mECU. Works supplies, training. T.A. Project in execution. 6th EDF. EDF REG 6632 A3a

**ORGANISATION OF EASTERN  
CARIBBEAN STATES (OECS)  
AND BRITISH VIRGIN ISLANDS**

**Eastern Caribbean States Export Development Agency (ECSEDA) and Automatic System for Customs Data (ASYCUDA).** Resp. Auth.: OECS secretariat in Castries, St. Lucia, ECSEDA headquarter in Roseau, Dominica. 4.430 mECU. T.A. and supply of equipment and computers. Project in execution. 6th EDF. EDF REG 6610 A5d

**OECS integrated tourism programme.** Resp. Auth.: OECS secretariat. 3 mECU. Co-operative marketing in Europe, T.A. and tourism training. *Project in execution.* 6th EDF. EDF REG 6613 A5c

**OECS — TRINIDAD AND TOBAGO —  
BARBADOS — GUYANA**

**Regional fruit and vegetable marketing programme.** Resp. Auth.: Caribbean Food Corporation. 6.2 mECU. T.A. and supplies. Project on appraisal. 6th EDF. EDF REG 6620 A5de

**OECS AND MONTSERRAT**

**Tertiary education.** Resp. Auth.: OECS Secretariat. 7.2 mECU. Construction, supply of equipments, training, trainers training, T.A. and evaluation. Project in execution. 6th EDF. EDF REG 6628 A6bcj

**CARICOM AND UK OCT**

**Regional hotel training programme.** Resp. Auth.: Bahamas Hotel Training College (BHTC). 4.4 mECU. Construction region training facility, supply of equipment, scholarships. Project in execution. 6th EDF. EDF REG 6614 A5c

**Student accomodation for Caribbean regional educational institutions.** Resp. Auth.: UWI, CAST and CTC. 16 mECU. Construction of residential hostels with a total of 1 080 beds and daytime accomodation in six campus concerned in Barbados, Jamaica and Trinidad and Tobago. Contracts for architectural design will be awarded following a design competition. Works by restricted tender after prequalification. Equipments and furnishings by int. tender. Project in execution. 5th and 6th EDF. EDF REG 6630 A6b

**CARIBBEAN ACP COUNTRIES  
AND OCT'S**

**Caribbean Tourism Development Programme.** Resp. Auth.: Caribbean Tourism Organisation (CTO), Barbados. Estimated cost 9 mECU. Market development in Europe, product development in the Caribbean, statistics and research, tourism education and training, linkages development. T.A. after pre-qualification. Project on appraisal. Date foreseen for financing December 90. 6th EDF. EDF REG 6917 A5c

**ALL ACP COUNTRIES**

**Support programme to take social dimension of the structural adjustment into account.** 1.500 mECU. Studies, statistics, reports, T.A. Project in execution. 6th EDF. EDF REG 6076 A1b

**ACP AND OCT COUNTRIES**

**ACP and OCT countries participation in trade development actions and services.** Resp. Auth.: Programme coordination by Trade Devpt. Unit in DG VIII-Brussels and geographical units in DG VIII-Brussels and EEC delegations. 6.193 mECU for ACP's and 0.375 mECU for OCT's. Trade fairs and tourism, seminars, conferences, workshops and symposia. T.A. to prepare programmes and actions and for training. Commercial missions (regional), publication of brochures and documentation. *Date financing October 90.* 6th EDF. EDF REG 6916 A5e

## MEDITERRANEAN COUNTRIES

**ALGERIA**

**Integrated training programme on forestry.** Resp. Auth.: Ministère de l'Hydraulique, de l'Environnement et des Forêts. 2.5 mECU. T.A. long-term and short-term, equipments, scholar-ships. Project in execution. SEM AL A3a

**Integrated programme to improve seed production for large scale farming.** EEC contribution 7 mECU. Works, supplies and T.A. Project in execution. SEM AL A3a

**Centre to Develop Pesticides (CDP).** Resp. Auth.: CERHYD (Centre de Recherche pour la Valorisation des Hydrocarbures et leurs Dérivés). 1.9 mECU. T.A. and training, supply of equipment. Project in execution. SEM AL A3a

**Support programme to the hydraulic sector.** Resp. Auth.: Ministère de l'Équipement, Direction de Développement des Aménagements Hydrauliques (DDAH) and Agence Nationale des Ressources Hydrauliques (ANRH). 8 mECU. T.A. for National Water Plan, supervision and monitoring for

dams, studies, waste water treatment stations. Supply of equipments. Project on appraisal. Date foreseen for financing 2nd half 90. SEM AL 183/90 A2b

**Pilot project to develop artisanal fishery in Western Algeria.** Resp. Auth.: Ministère de l'Agriculture et de la Pêche. 9.770 mECU. Supply of line of credit and specialized T.A. Training and scholarships. Evaluation. Project on appraisal. Date foreseen for financing November 90. SEM AL A3a

**Financing of artisanal enterprises from "Société Nationale de l'Electricité et du Gaz (SONELGAZ)".** Resp. Auth.: Ministère de l'Industrie et de l'Artisanat and SONELGAZ. 9.060 mECU. Supply of line of credit for artisanal enterprises, supply of pedagogical equipment, T.A. for bank-office in charge for credits. Project on appraisal. Date foreseen for financing November 90. SEM AL A4d

## EGYPT

**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 2nd half 88. T.A.: GET/KFA (D). Int. tender dossier: Phoebus (I). SEM EGT 1002 A2a

**IUD production.** Resp. Auth.: National Population Council (NPC). EEC 2.100 mECU. T.A., equipments, row material for local production of IUD. T.A. by Organon (NL). Equipments by int. tender. Project in execution. SEM EGT A3c

**Food Sector Development Programme (FSDP).** Resp. Auth.: Ministry of Agriculture and Land Reconstruction, National Oil Crop Council, Livestock Production Council, Animal Production Cooperatives (APC). 55 mECU. Animal food improvement. Milk marketing. Artificial insemination (AI) and animal health improvements, edible oil, line of credit. T.A. Project in execution. SEM EGT A3a

**Bardawil Lagoon development project.** Resp. Auth.: Ministry of Agriculture and Land Reclamation (MOALR) and the General Authority for Fish Resources Development (GAFRD). 3 mECU. Protection of natural resources by controlling and improving the water salinity of the Lagoon. Improvement of the marketing of fish and reduction of losses. Construction of an additional landing place with basic marketing facilities and improvement of the existing one. Installation of a cool chain including an ice-making machine. Improvement of the Lagoon's fishing methods by introducing more careful fishing techniques and better management. T.A. for the development and implementation of training and extension programmes. Purchase of equipment and vehicles by int. tender. Project on appraisal. Date foreseen for financing November 90. SEM EGT 510/90 Aai

**Credit line for small-scale industries.** Resp. Auth.: Ministry of Industry, Federation of Egyptian Industries (FEI). 8.5 mECU. Credit line and T.A. Project on appraisal. Date foreseen for financing November 90. SEM EGT 509/90 A4b

## JORDAN

**Study on underground water-level in the Azraq basin.** Resp. Auth.: Ministry of Hydrology and Irrigation. 3 mECU. To collect and exploit all data concerning water region of Azraq basin. T.A. supply of equipment and drilling works. Works by acc. tender. Project in execution. SEM JO A2a

**Project for a national soil map and land utilization.** Resp. Auth.: Ministry of Agriculture. 4 mECU. T.A. and training. Project in execution. SEM JO A1g

**Education Improvement.** Resp. Auth.: Ministry of Education. 1.8 mECU. T.A. by ten experts and one project director. Scholarships. Project on appraisal. Date foreseen for financing 2nd half 90. SEM JO 261/90 A6a, A6b

**Improvement of agricultural productivity in arid and semi-arid zones. Phase II.** Resp. Auth.: Ministry of Agriculture and the University of Jordan. T.A. by a European research institution competent in the development of arid zones. Works by acc. tender. Supply of equipment by int. tender. Project on appraisal. Date foreseen for financing November 90. SEM JO 570/90 A3a

**Ground water investigation in the Hammad and Sirhan basins.** Resp. Auth.: Ministry of Water and Irrigation, Water Authority. 4 mECU. Initial studies, drilling explorations, surveys and analysis. Project on appraisal. SEM JO 589/90 A2a, A9a

## MALTA

**Improvement of infrastructure.** 3.1 mECU. T.A. and supply of equipments. Management of natural water resources, long term development plan for "Telemalta Corporation", Supplies by int. tender. Project in execution. SEM MAT 88 A9b

**Protection of Malta's coastline against oil pollution.** Resp. Auth.: Oil Pollution Executive. 2.4 mECU. Supply of specialized equipment, training and T.A. Project in execution. SEM MAT A8f

**Upgrading of economic and research/training infrastructures.** 4.2 mECU. Improvement and modernization of training and research in radiology in the main hospital. T.A. and supply equipment. Modernization of the telephone network in La Vallette. Modernization of the wireless and telegraph branch. T.A. and supply of equipment. Project on appraisal. Date foreseen for financing 2nd half 90. SEM MAT 281/90 A2c, A7a

## MOROCCO

**Support to strengthen technologic and scientific education structures.** Resp. Auth.: Ministère de l'Education Nationale. EEC 40 mECU. Achievement of Beni

Mellal and Settat faculties. Construction of Errachidian and Mohammedian faculties and CPRT of Settat. Supply of equipments for faculties and CPRT, studies, T.A. and supervision. Works and equipments by int. tenders. Project in execution. SEM MOR A6b

**Rehabilitation and protection of the disaster areas in Ouarzazate and La Moulouya.** Resp. Auth.: Office Rég. de Mise en Valeur Agricole de Ouarzazate (ORMVAO) and La Moulouya (ORMVAM). Works by direct labour. Supply of equipment by acc. tender. Project on appraisal. Date foreseen for financing 2nd half 90. SEM MOR 236/90 A3a

**Support to strengthen training structures in the textile and leather sectors.** Resp. Auth.: Ministère des Travaux Publics, de l'Equipement de la Formation Professionnelle et de la Formation des Cadres and the OFPPT. EEC contribution 28.075 mECU. EEC part: construction of 3 centres. Equipements for 6 centres trainers training and T.A. Project on appraisal. Date foreseen for financing 2nd half 90. SEM MOR 264/90 A6c, A6d

## TUNISIA

**Date-palm trees in the Rejim-Maatoug region.** Resp. Auth.: Office de Mise en Valeur de Rejim-Maatoug. EEC contribution 15 mECU. Italy 7 mECU. Drilling works by int. tender. Drilling equipments: Italy. Electric equipment: Italy. Irrigation equipments: int. tender. T.A.: Italy. Project in execution. SEM TUN A3a

**Credits for S.M.E. rural sector.** Resp. Auth.: Banque Nationale Agricole (B.N.A.) 12 mECU. 1st phase purchase of 60 000 or 70 000 t of wheat: hard and/or soft, by "Office des Céréales". Counterpart funds will be distributed for credit operations. Purchase by int. tender. Project on appraisal. Date foreseen for financing November 90. SEM TUN 3aA

## TURKEY

**Geothermal energy in Western Anatolia.** Resp. Auth.: MTA — Institut de Prospection et Recherches Minérales. EEC contribution 8 mECU. Supply by int. tender of specialized equipment for wells, boreholes and for laboratory analyses. T.A. and training. Project in execution. SEM TU A4a

★ **Improvement of health services.** EEC contribution 5.8 mECU. Master plan, specialized medical equipments, scanner, vehicles. T.A. and supplies. Project in execution. SEM TU A7ac

**Fight against environmental pollution.** Resp. Auth.: Prime Minister's Office. Directorate General of the Environment. EEC contribution 2.8 mECU. Purchase of mobile system to measure, control, water, air, surface and soil pollution. Supply of laboratory equipment, T.A. Project in execution. SEM TU A8f

**Vocational training programme for tourism and mining.** EEC contribution 5.4

mECU. Seminars, staff, trainers, supply of equipment, studies. Project in execution.

SEM TU A5c, A4a, A6d

**Programme to deepen association relations between EEC and Turkey.** EEC contribution 3.6 mECU. Scholarships, supply of equipment for the University of Ankara and Marmara. Training centre and language laboratory in Marmara. Establishment of a Euro-Turkish "Business Council". Project in execution.

SEM TU A6b

**Regional centre for training and development for the "Union Internationale des villes (UIV)" for eastern Mediterranean countries and Middle-East in Istanbul.** EEC contribution 1.4 mECU. T.A. and supply of equipment. Project in execution.

SEM TU A1c

## WEST BANK AND GAZA OCCUPIED TERRITORIES

**Assistance to the Palestinian population in the occupied territories.** EEC contribution 6 mECU. Various projects, lines of credit, supply of equipment, T.A. and training.

\* **Project in execution.**

SEM OT 90 A8a, b, e

# A.L.A. developing countries ASIA and LATIN AMERICA

## BANGLADESH

**North Central Regional Study Project.** Resp. Auth.: Flood Plan Coordination Organization of the Ministry of Irrigation, Water Development and Flood Control. Estimated total cost 3.740 mECU. EEC contribution 1.870 mECU, France 1.870 mECU. T.A. for Regional Water Devp. Planning Study: short-list not yet done. Feasibility study of the

\* **Priority Project: financed by France. Project in execution.**

ALA BD 9003 A8g

**National Minor Irrigation Development Project (NMIDP).** Resp. Auth.: Ministry of Agriculture. Estimated total cost 131 mECU. EEC contribution 65 mECU. IDA/World Bank and local 66 mECU. Works and supplies. T.A. for environment, training. Project on appraisal. Date foreseen for financing December 90.

ALA BD 9013 A3a

**River survey project.** Resp. Auth.: See ALA BD 9003 project. EEC contribution 12.6 mECU. T.A. to collect reliable data on discharge, water levels, river velocities and sediment transport, provide reliable hydrographic charts of key areas. Training, special equipment and instruments and SPOT imageries. Project on appraisal. Date foreseen for financing December 90.

ALA BD 9004 A9a

## BHUTAN

**Development of agricultural support activities.** Resp. Auth.: Ministry of Agriculture. EEC contribution 3.4 mECU. Building of regional centres, soil analyses laboratory, supply of equipments and vehicles, T.A. and training. Project in execution.

ALA BHU 8809 A3a

**Strengthening of veterinary services for livestock disease control.** Resp. Auth.: Ministry of Agriculture. EEC contribution 4 mECU. Building works by acc. tender. T.A. by restr. tender after short-list. Short-list not yet done. Equipment and materials by Specialised Procurement Agent appointed by the CEC in agreement with the R.G.O.B. Vehicles and vaccine, by int. tender. **Date financing September 90.**

ALA BHU 9008 A3a

## BOLIVIA

**Protection of La Paz, Trinidad, Santa Ana, Villa Montes against floods.** Resp. Auth.: CORDEBENI, CORDETAR and A.M. LA PAZ. EEC contribution 11.700 mECU. Works, supplies, T.A. and supervision. Studies. Project on appraisal. Date foreseen for financing December 90.

ALA BD 9023 A9a

## COLOMBIA

**Microprojects in the Pacific Coast zone. Phase 2.** Resp. Auth.: Corporación Regional Autónoma del Valle del Cauca (CVC). EEC contribution 11.200 mECU. T.A., works, equipments and line of credit. Training. Project on appraisal. Date foreseen for financing December 90.

ALA CO 9020 A3a

## GUATEMALA

**Programme for sustainable development of the Lake Atitlan Basin.** Resp. Auth.: Ministerio Desarrollo Urbano e Rural (MDUR). Pilot programme of microprojects. EEC contribution 3.5 mECU. Works and infrastructures. Supply of equipment, line of credit, T.A. and studies. Int. tender launched end of April 89. Project in execution.

ALA GU 8822 A3a

## INDIA

**Agricultural markets in Kerala.** Resp. Auth.: Ministry of Agriculture. 18.4 mECU. Construction of three larger regional markets and three smaller markets along the east-west trade routes. Site development, shops and storage facilities, roads and parking areas. T.A. and training. Project financed through counterpart funding from sale of -260 000 T of muriate of potash (MOP). Purchase by Minerals and Metals Trading Corporation (MMTC) Int. tender in 89. Project in execution.

ALA IN 8818 A3a

**South Bhagirath: II. Integrated watershed management.** 8.4 mECU. Reafforestation, soil protection, T.A. Project financed through counterpart funding from sale of 115 000 t of muriate of potash by MMTC in 89. Int. tender: see ALA IN 8818. Project in execution.

ALA 8820 A3a

**Doon Valley integrated watershed management project.** EEC contribution 22.5 mECU. Rehabilitation and reafforestation, soil conservation, minor irrigation, energy conservation, community participation, agriculture. Works by direct labour, supply by int. tender or acc. tender. T.A. Project on appraisal. Date foreseen for financing December 90.

ALA IN 9014 A3a

## INDONESIA

**Rural electrification project (hydroelectric micro-power stations).** Resp. Auth.: Ministry of Energy and Mines. Electricity and new energy Dept. EEC contribution 18.9 mECU. Works, supply of turbines, generators, adjusters of 10 KW, 25 KW and 100 KW, vehicles and other equipment, T.A. and training. Project in execution.

ALA IND 8719 A2a

**Punggur Utara irrigation project.** Resp. Auth.: Ministry of Public Works, Directorate General of Water Resources Development (DGWRD). EEC contribution 29.3 mECU. Civil works: main system, secondary and tertiary canals. Works by int. tender and acc. tender. T.A. for preparation tender dossiers, supervision and monitoring. Project on appraisal. Date foreseen for financing December 90.

ALA IND 9019 A3a

## LAOS

**NAM NGUM water, pumping irrigation.** Resp. Auth.: Ministère de l'Agriculture, Forêts, Irrigation and Coopératives Nationales (MAFIC). EEC 5.5 mECU. Building of 4 irrigation networks and drainage. Studies, construction of 4 pumping stations, supply of equipments and T.A. Project on appraisal.

ALA LA 8802 A3a

## NICARAGUA

**Reintegration of qualified persons for economic reconstruction and development.** Resp. Auth.: Organisation Internationale pour la Migration (OIM), Genève. 5.1 mECU. **Project in execution.**

ALA NI 9005 A1b

## PACTO ANDINO MEMBER COUNTRIES

**Regional programme for technical cooperation: APIR (Accelerate Process on Regional Integration).** Resp. Auth.: JUNAC. EEC participation 7.3 mECU. T.A. for studies, training and advising. Supply of small equipment. Project in execution.

ALA JUN 8806 A1b

**Satellite Telecommunications Andean System (SATS) Preparation - Phase 2.** Resp. Auth.: JUNAC. 2.2 mECU. Project in execution.

ALA JUN 8803 A2c

## HONDURAS — NICARAGUA

**Special fund for export promotion.** Resp. Auth.: Banco Centro Americano de

Integración Económica (BCIE) and the Euro-pean T.A. EEC contribution 32 mECU. Line of ★credit and T.A. **Date financing September 90.**

ALA REG 9006 A5d

## PAKISTAN

**Support to the rural population of the Chitrai region.** Resp. Auth.: Aga Khan Foundation, Pakistan, Karachi. EEC contribution 8 mECU. Rural development, health, education. Project on appraisal. Date foreseen for financing December 90.

ALA PK 9018 A3a

## PANAMA

**Rehabilitation of Santo Tomás Hospital.** Resp. Auth.: Ministerio de Salud. EEC contribution 4 mECU. Works, supply of equipment and T.A. for maintenance, training and management. Project on appraisal. Date foreseen for financing December 90.

ALA PAN 9017 A7a

## PANAMA — COSTA RICA — NICARAGUA — HONDURAS — EL SALVADOR — GUATEMALA

**Regional development programme for agricultural research on cereals in Central-America.** EEC contribution 10.8 mECU. T.A. and supply of equipment. Project in execution.

ALA REG 8823 A3a

**Regional support programme for fishery development in the Central American isthmus.** Resp. Auth.: OLDE-PESCA. EEC contribution 13.4 mECU. T.A., works, supply of equipments, line of credit, ★training, studies. **Date financing October 90.**

ALA REG 9009 A3a

## BCIE (BANCO CENTROAMERICANO DE INTEGRACION ECONOMICA)

**Support to the SME in Central America (PAPIC). Phase II.** Resp. Auth.: BCIE. EEC 6 mECU, Italy 1 mECU, Sweden 3.8 mECU, BCIE 3.8 mECU. Hard currencies funds. T.A. and training. Project in execution.

ALA REG 8909 A5b

## EL SALVADOR — GUATEMALA — HONDURAS

**Trifinio region development pilot project.** Resp. Auth.: Ministros de Recursos Naturales. Comité de Dirección. EEC contribution: 7.170 mECU. Reforestation works, feeder roads, warehouses, supply of equipments and T.A. Feeder roads, irrigation, warehouses and supplies by int. tender. Project in execution.

ALA REG 8814 A3a

## PERU

**Rural micro-projects programme (Pampa- Puno II).** Resp. Auth.: CORPUNO. EEC contribution 21.4 mECU. T.A.: ten expatriates. Supply of trucks, vehicles, equipments, training. Project in execution.

ALA PE 8817 A3a

**Irrigation project in Tumbès.** Resp. Auth.: Comisión mixta Puyango-Tumbres. Sub-comisión peruviiana. EEC contribution 21.4 mECU. Purchase of equipment and materials. Credit line. T.A. and training and research. Project on appraisal. Date foreseen for financing December 90.

ALA PE 9012 A3a

## PERU — ECUADOR — COLOMBIA (PEC)

**Regional programme: fishing technical cooperation EEC/PEC.** Estimated EEC contribution 6 mECU. T.A., supply of equipments and training. Project on appraisal.

ALA REG 8721 A3a

## COCESNA — COSTA RICA — EL SALVADOR — GUATEMALA — HONDURAS — NICARAGUA

**Radar control for civil air traffic in Central America. EURO MAYA project.** Resp. Auth.: COCESNA (Corporación Centroamericana de Servicios de Navegación Aérea) and co-director EEC. EEC contribution 18.5 mECU, Italy 9.5 mECU. Civil works, supplies, 4 radars and equipments, communication systems. Extension of the Tegucigalpa control centre. T.A. and training. Project in execution.

ALA REG 8819 A2d

## PHILIPPINES

**Agricultural education programme.** Resp. Auth.: Ministry of Education, Culture and Sports (DECS). EEC contribution 10.4 mECU. Parallel cofinancing with ADB. Supply of equipments and agricultural inputs. Pedagogical equipment, furnitures, laboratory equipments and audio-visuals, books, chemicals, tools, vehicle, T.A. and training. Project in execution.

ALA PHI 8824 A6ci

**Earthquake Reconstruction Programme (ERP) (July 90).** Resp. Auth.: Department of Agriculture, CECAP (Central Cordillera Agricultural Programme). Project Office. EEC contribution 20 mECU. Agricultural rehabilitation, works, supplies and T.A. Hospital rehabilitation: works for 2 hospitals, supply of equipment and supervision. Studies: 1) Alternative transport strategy study. 2) Urban planning studies for the cities of Bagnio and Dagupan. Project on appraisal. Date foreseen for financing December 90.

ALA PNI A8a

## SRI LANKA

**Pilot project for agricultural productivity villages under the poverty alleviation programme.** Resp. Auth.: Project Implementing Unit. 2.5 mECU. T.A. training and supply of equipment. **Project in execution.**

ALA SRL 9002 A3a

**Minor and medium size irrigation systems in the North-Western province.** Resp. Auth.: Ministry of Land and Ministry of Agriculture. EEC contribution 6.3 mECU. Work, by direct labour, supplies by int. tender. T.A. Project on appraisal. Date foreseen for financing December 90.

ALA SRL 9016 A3a

## THAILAND

**Development and extension of fruit and vegetable production in Northern Thailand.** EEC contribution 9.45 mECU. Long-term T.A., supply of equipments, line of credit, training, research and follow-up and evaluation. Project in execution.

ALA TH 8812 A3a

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free". But this work nonetheless highlights principles—technological and economic innovations, a spirit of enterprise, hard work, perseverance and organisation—which should clearly continue to inspire us if we are keen to see prosperity thrive. And it could well be a stimulating and useful reference for the developing countries.

A.L.

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Jacques CHEVRIER — **Anthologie africaine d'expression française (vol. 1: le roman et la nouvelle)** (Anthology of African literature in French - vol. 1: The novel and the story) — Collection Monde Noir poche — Hâtier — Paris — 159 pages — Bfrs 174 — 1987.

The author, a professor of comparative and African literature at the Universities of Paris III (new Sorbonne) and XII (Val de Marne), has published a large number of articles, studies and other works on the literature of Black Africa and is therefore very well qualified to present this view of the African novels and stories written in French over the past 30 or 40 years. The extracts from the works introduced here are grouped under four headings—the ambiguities and constraints of colonial society, the time of unease, between tradition and revolt, and disenchantment—and from them emerge various themes common to all countries and all eras; such things as brotherhood, the motherland, the fight against injustice, the weight of tradition, nature, women and so on. The writers of the new generation want to "escape from the determinism which weighed so heavily on their elders, who were condemned to producing social novels or ethnographical reports, and they feel, rightly, that they now have the right to the most total freedom of expression". But the young writers have a publishing problem, books still being a luxury for most Africans, and a language problem, in that they must either "opt for African languages or decide to have no complexes about using French".

A.L.

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**Pulling Together: The International Monetary Fund in a Multipolar World**, by Catherine GWIN, Richard E. FEINBERG and contributing editors.

Transaction Books, New Brunswick (USA) — 175 pp. — \$ 12.95 — 1989.

This series of essays is intended to further the debate on the future role of the IMF. The IMF played a major role in the first two post-war decades, especially in Europe where it helped the war-torn European economies to stabilise exchange rates, return to currency convertibility and remove discriminatory trade policies. All this was achieved under the umbrella of the US economy which grew steadily and whose currency proved to be the lynchpin of the world economic order. Today, the US economy is no longer the motor of growth, and is no longer the predominant one. Moreover, since 1973, and more especially since 1976, when the IMF's articles were amended, the US dollar has ceased to act as the bedrock of the international financial system.

Today, some schools of thought insist that the IMF should return to its old 'vocation' of ensuring a stable international monetary system, exercising influence over international financial relations between the major industrial countries and, over time, turn itself into a global central bank. Others believe that the IMF's major role should continue to be what it has been for over a decade—financial

adviser to the developing countries, leaving the industrial countries to make their own arrangements.

The contributions in this volume touch upon all the important topics which the Fund's management will have to face up to: defining its role in global monetary management, dealing with developing-country debt, improving the economic performance of sub-Saharan Africa, enhancing IMF-World Bank cooperation, helping to integrate Eastern Europe and the Soviet Union into the global economy, and upgrading its own capabilities. At a time when the EEC is coordinating its policies towards Eastern Europe, in the process of ratifying the Lomé Convention, and moving towards its own economic and monetary union, this book appears as a timely and densely-packed contribution to the discussion. It is of note that Michel Camdessus, Director of the IMF, and Dieter Frisch, Director General for Development, have, in the last few months, begun a process of discussion which may lead to better coordination in the future. The essays, lavishly complemented with tables and statistics, may help all supranational economic and financial organisations to take stock of themselves at a crucial moment in the world's economic development.

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