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**LAGOS :
2nd WORLD
BLACK & AFRICAN
FESTIVAL OF
ARTS & CULTURE**

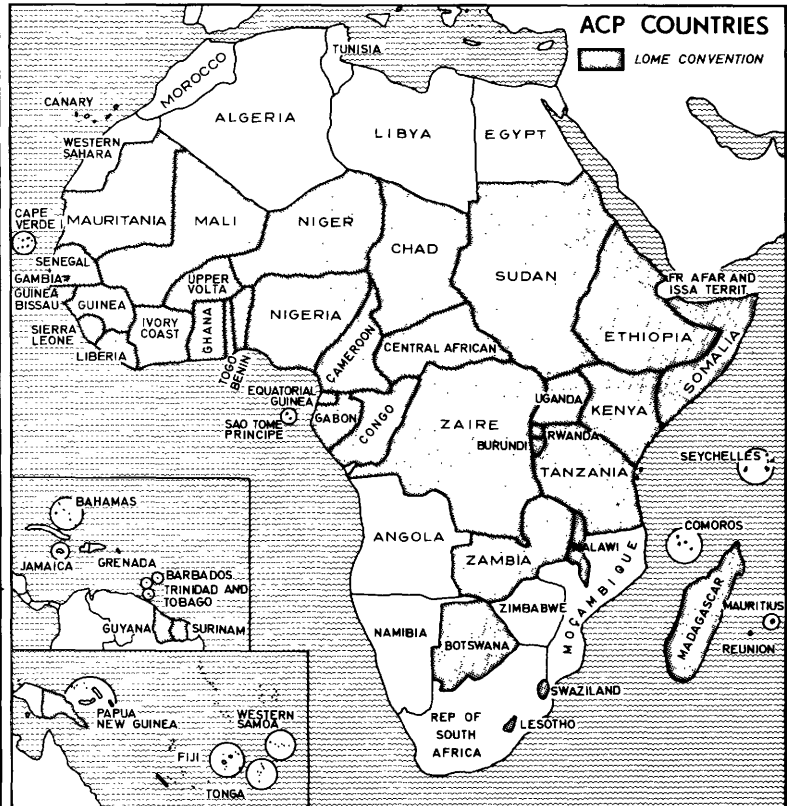
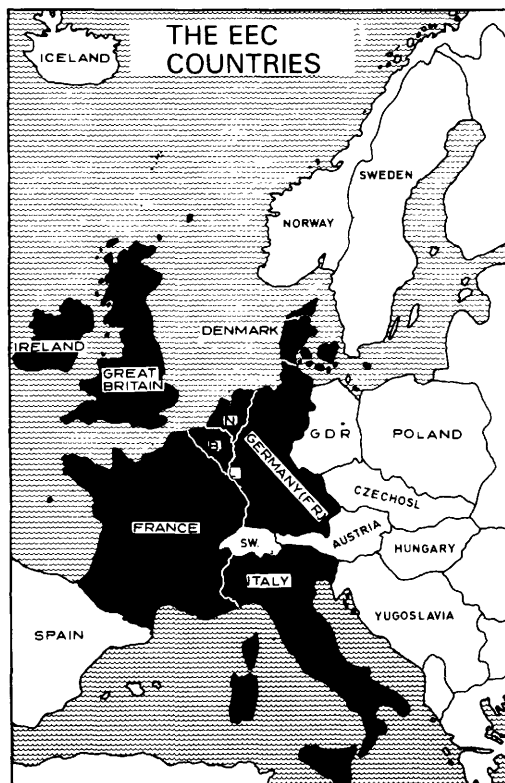
**DOSSIER : WATER AND
RURAL DEVELOPMENT**

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GHANA	PAPUA NEW GUINEA	ZAMBIA
	RWANDA	



Netherlands — The Netherlands has one of the best records in fighting underdevelopment in the Third World. Despite its small size, the Netherlands, as development minister Jan Pronk told the "Courier", feels that "political will" is the first necessity. The industrialized countries, he said, take far too little notice of the situation of the Third World. **Page 3**



Viewpoint — The new character the Lomé Convention gives to economic cooperation between the ACP countries and the EEC has been analysed at length, but it is the way individual mentalities develop that conditions the way in which societies develop. Women's status is very much a case in point. Edele Kruchow, a Danish member of the European Parliament's Committee on Development and Cooperation, gives her views on how the Lomé Convention can help women in the ACP countries and how women can help national development. **Page 8**

Sudan — President Numeiri outlines the Sudan's economic and foreign policies at the beginning of the 1977/8-1982/3 five year plan. The biggest ACP country has great economic potential, primarily in agriculture, and agriculture minister Abdalla Ahmed Abdalla stresses the continuing priority that will be given to farming under the plan. This does not mean other sectors will be neglected. Some of the Sudan's main economic problems, particularly in transport and communications, are already well on the way to being solved. **Page 14**



Dossier — The UN Water Conference, held in Argentina in March, drew attention to the vital importance of water in the development of the Third World, particularly in rural areas. Water resources must be better managed at national and international level if there is to be enough for agriculture, industry and the home. In country areas, a supply of clean water can transform the quality of life, bringing better health, doing away with the daily chore of fetching water and improving the possibilities of food production. **Page 42**



The Arts — The second World Black and African Festival of Arts and Culture took place in Lagos in January/February 1977 (see last issue of the "Courier"). This remarkable cultural get-together was the occasion for the black and African world to express its determination to "recapture the origins" of its cultural and artistic heritage. Black and African art has now recovered its strength and the right to respect. **Page 90**



THE COURIER

EUROPEAN COMMUNITY —
AFRICA - CARIBBEAN - PACIFIC

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Wasting the world's most precious resource

Fifty years ago, there were 2000 million people on earth. Today there are twice as many. The figure will be tripled or more by the end of the century and forecasts for the beginning of the 21st century show that, at this rate, the world's population will increase as much in one year as it did during the first 15 centuries AD. The fantastic transformation represented by this accelerating population growth has been made possible by scientific and technological progress, but, at the same time, it has cast doubt on many of our most widely accepted assumptions. We must live tomorrow. And the world has for several years shown growing awareness of the fact that its resources are not inexhaustible. One resource, however, water, is tied up in a closed cycle of rainfall and evaporation. Why, when water at least seems inexhaustible, was it the subject of a UN conference in Mar del Plata, Argentina, in March?

The secretary-general of the conference, Yahia Abdel Mageed, for five years Sudan's minister for irrigation and hydro-electric power, defines the aims in an interview in this issue.

The Mar del Plata conference was the latest in a series of international meetings organised by the United Nations: on environment (Stockholm, 1972), population (Bucharest, 1974), food (Rome, 1974), human settlements (Vancouver, 1976) and with desertification to come (Nairobi, September 1977). It produced the first international inventory of problems concerning water supplies. Consumption of water in many developing countries

is around 40 litres a day per person. In the industrial countries it can reach 4000 litres a day, combining household, industrial and agricultural needs.

One priority issue is the distribution and supply of drinking water to the millions of people living in rural areas and the various national delegates submitted more than 200 studies and plans to the conference, from a project to harness icebergs to irrigate the Saudi-Arabian desert to the desalination of sea water and the recycling of waste water.

* * *

The extreme meteorological conditions which cause flooding, like that just after Bangladesh became independent, or prolonged drought, like that in the Sahel and even in Western Europe last year, have brought the importance of water into dramatic focus. We not only have to cope with these temporary phenomena, we also have to find an answer to the problem in the long term.

Although 70% of the planet is covered by water, most of it is salt or frozen water and some of it is far below the surface of the earth. And, we are told, only a surprising one ten-thousandth of the planet's reserves are on the surface, in springs, rivers and lakes.

Today, water consumption is endangering reserves in many places—not just the highly industrialized countries, but the underde-

veloped areas as well. The situation will deteriorate with the expansion of the population, domestic consumption, irrigation requirements and industrialisation. Producing one ton of steel and one of paper requires respectively 290 tonnes and 200 tonnes of water. Alongside this, waste disposal and the ever-increasing amounts of artificial chemicals and other pollutants are fast worsening the quality of the water. Health, the environment, our means of existence, development and, in many regions, life itself, are in danger.

Yet schemes to control water can upset natural balances. For instance, mass irrigation programmes are often the means of spreading schistosomiasis, the terrible disease transmitted by fresh-water snails. In Stockholm in 1972, Dr Letitia Oberg pointed out the link between the devastating spread of this disease and spectacular projects like Lake Nasser, the Aswan Dam and the world's largest artificial lake on the Volta in Ghana. The projects should not, of course, be dropped, but the simple, familiar remedies—hygiene and maintenance—must be applied.

In addition, in many of the countries where there is not yet a critical water shortage, growing demand coupled with the high costs of anti-pollution measures are constantly pushing up the cost of water.

This is not futurology. These are problems of today. Unless we can introduce radical quantitative and qualitative improvements to the way water resources are utilised, we shall lack the supplies to support the agricultural, social and industrial growth forced upon us by the population explosion. □

A. LACROIX

Dutch aid minister Jan Pronk: “We underestimate the impatience of the Third World”

Jan Pronk is the youngest member of the Dutch Cabinet, where he is also considered politically the furthest to the left. The “Courier” outlined his ideas soon after he first took over Dutch development policy four years ago. In this interview, shortly before a general election, he looks at what has been achieved and where his policy goes from here.

► *Minister, despite the economic recession the Netherlands is the first EEC country to reach the 0.7% target of the second development decade. What do you attribute this to?*

— To a political decision. In the election manifesto of a number of political parties in this Cabinet we included the proviso that, should it be necessary to make cuts in the government budget, for reasons not yet known at that time, these could of course be made but development cooperation would be excluded from these cuts. This was a decision of the congress of the Partij van de Arbeid (Labour Party), the socialist party in the government here. We did not anticipate then that there would be a crisis in raw materials and oil which would in fact lead to a considerable readjustment of the government budget and long-term estimates in respect of its total policy. This political decision was the main reason for not altering the aid programme along with other items in the government budget. You may ask why such a decision was included in that election programme. This is connected with what you might call the important priority which, in Dutch society,

we generally give to development cooperation, which made it politically possible to stick to that previous decision during that period.

Going Dutch

► *The bilateral Dutch aid programme is largely directed towards a number of special and general “concentration” countries: is it flexible enough in its application to cope with changing economic circumstances within these countries, or even totally different circumstances?*

— It has become considerably more flexible than in the past and this was possible due to the fact that the total aid budget was allowed to rise so sharply. The more means you have at your disposal, the more you can afford to work flexibly. Working more flexibly is expressed by a considerable increase in the number of “concentration” countries on which we concentrate our aid. In the recent past a large number of countries have been added, based on a number of clear-cut criteria. Secondly it is expressed by the fact that, apart from giving aid to the “concentration” countries, not so much aid is now given to non-concentration countries; it is aimed more at direct programmes and projects and particularly at new problems. This way, for example, it was possible to create a special programme as soon as the Portuguese colonies became independent. The same after the Vietnam war, when a special new amount was made available without making Angola, Mozambique and Vietnam “concentration” countries within the terms of the Dutch aid programme. Within the individual “concentration” countries it is possible to operate flexibly as regards spending the aid money, for two reasons.

In the first place, every year we consider the circumstances in the country which expects improvements in its poverty problem, the actual need for aid and also the social and economic policies carried out—these are the three criteria—and depending on the extent to which these three criteria are met, aid is increased to a greater or lesser extent. Secondly, when the amount has been fixed for each country, we much prefer proposals made by the government of the country in question, which are based on its own considerations as to what is necessary. In our policy there is a tension between, let me say, self-reliance on the one hand and on the other hand the emphasis we want to put on the basic needs approach, and proper distribution of wealth. This means that in the first instance we always accept the project proposals made by the government of the developing country, and only when there is more involved do we put forward proposals of our own in order to reach the poorest groups in the country. We attach no other fringe conditions to their own proposals.

► *Perhaps you could clarify the bilateral aid policy. In the last few months you have often emphasized that the aid should really go to the poorest developing countries, but I still get the impression that the Dutch “concentration” countries are not necessarily the poorest.*

— I just said that we have three criteria: poverty, the actual need for aid which is expressed, among other things, by deficits in the balance of payments, and the internal social and economic policy of the country, with particular reference to the question of whether it is possible to form a development process in that country beneficial to cooperation overall and enjoyed by everyone. We try to make the best of these three criteria in our choice of country. Dutch politics attach great value to the third criterion: the social and political structure of the country. On this basis we have added some countries to our lists, for example, Cuba, Zambia and Jamaica. These are



Jan Pronk at a development meeting
"First the political will..."

not the poorest countries. As far as the number of poor countries is concerned, I would like to say that in our aid policy we do in any case give quite a lot of aid to countries like Indonesia, India, Pakistan, Bangladesh and Tanzania, which are either the poorest countries or belong to the group of worst-hit countries. As regards the extent of aid, these five countries are at the top of the whole list. The countries which are chosen mainly on the socio-economic structure criterion receive quite a lot less development aid. As far as the extent of aid itself is concerned, the majority of Dutch aid, therefore, really goes to the poorest and worst-hit developing countries. Adding to these five the countries which belong to the worst-hit category like Sri Lanka, Yemen, the very poorest Arab country that can be found, Upper Volta, the very poorest West African country there is, I find that the impression you have is not correct. I have to add one more thing. As a result of the special relationship Holland had with Surinam and with the Dutch Antilles, quite a lot of aid goes to these countries. But this is a historic link in the field of development cooperation which looks like a moral obligation and which we do not want to sever.

► *In the field of multilateral aid, and more especially in the field of European aid, you have been pushing for much greater coordination and cooperation.*

Could you give a brief summary of what you want to achieve?

— Within the EEC there is vigorous debate on the question of to what extent greater harmonisation and coordination is possible. The EEC Commission has made a proposal in this respect and the German Federal Republic also sent a memorandum to other member states via the former aid minister, Mr Bahr. We have done the same. In our memorandum we particularly emphasized the desirability of coming to an agreement, particularly on the contents of the policy itself, when trying to achieve harmonisation and coordination between the individual EEC countries. Our point of view is that to reach agreement on the contents of the development policy is a *sine qua non* as regards coordinating the institutional aspect of the policy. We don't think it's very likely that we will automatically reach agreement on the contents of a policy immediately we have agreed on having a policy. We, therefore, prefer to follow the way I described.

I can illustrate this with a number of examples. For example, the raw materials policy of individual member states. In this respect we are under some sort of obligation to conduct a policy within the EEC in connection with raw materials as a result of the Community trade policy. But the fact that we are under this sort

of obligation has not led us to agreement. On the contrary, the points of view vary very considerably.

Another example: it is very difficult for the Netherlands, which has easily exceeded the 0.7% to coordinate bilateral aid with other countries within the EEC which have not even reached 0.2%. I am quite prepared to carry on coordinating this policy when these countries are really prepared to live up to their international obligations. What is there to coordinate if this does not happen? That means coordinating downwards. And that is surely not the right idea.

In certain fields there is much more agreement than in others, so let us try to really coordinate in those fields. We made a rather sweeping proposal in the form of a memorandum about the coordination of emergency aid in the EEC. I hope it will come to something. In the field of food aid, coordination has already largely been achieved and we are able to make progress. As regards aid in certain international organisations, for example, of which the IFAD is an example, a certain degree of coordination has been achieved. In this field we are prepared to coordinate this pragmatically. Should there be a great difference of opinion on another topic, then we are of the opinion that we should not exert too much pressure on each other but that we should talk mainly about the contents of the policy.

The need for good information

► *You have supported various initiatives, the harmonization of thinking on development aid, for instance, and the new magazine "Troef" was recently launched on an international basis. You also financed the RIO report, among other things. Do you really think that better public information and public opinion can pressure politicians in the industrialized world to achieve better policies?*

— I cannot speak for other countries. Here in the Netherlands considerable public support for development policy is noticeable, although there are problems as regards certain aid programmes such as to Cuba or to liberation movements.

Conflicts also exist in connection with our own economic situation. Unemployment is rather high. It is quite understandable for people in the textile sector to say "why give aid to India to enable them to export more textiles to us?". We believe that for us to be able to continue an ambitious development policy—and our policy has been ambitious—we should continually advocate aid by means of proper information about the problems of the Third World, and specific information is needed where specific problems arise in the world. This is done in various ways.

We give the private aid organisations in Holland the opportunity to carry out every possible kind of information and thought-provoking projects, financed by the Dutch government. This costs us 10 million guilders(1) a year.

Then we have a major information service, which sets up its own activities, costing a couple of million guilders a year. On the whole we let this information service develop activities for the sake of people in Holland who are not really affected very much by the problem. "Sam Sam" is a magazine for children up to the age of 11, "Troef" is mainly aimed at people who have no more than primary education or lower secondary education. These are the people who so far have not been too interested in this kind of problem.

In addition there is information with a specific purpose within the framework of, for example, subsidised research, such as subsidising a report like RIO.

These are all actions aimed at a different category of the population. The level of this information will have to be maintained year after year, not only to "translate" the aid policy but especially to confront people again and again with the importance of the fight against poverty in the Third World. If this isn't done you cannot conduct an ambitious policy either. We have the impression that this policy of ours is having some effect.

► *Recently you carried out an important shift of emphasis within the Finance Company for Developing Countries (FMO), which was mainly aimed at a greater majority of state participation. How do you see the future operation of this aid organization?*

— A number of years ago we created the FMO to support private Dutch investments in developing countries by means of financial aid. In my opinion the set-up should not be restricted to this function but should be concerned mainly with support for industrial activities in developing countries irrespective of whether these involve foreign or national companies. With us it really mainly concerns aid to companies from developing countries, in the actual countries themselves. We have, therefore, expanded the FMO into an organisation which can give financial support and technical assistance to companies from the developing countries themselves without excluding support for private Dutch investments. The working area has also been expanded in some other fields by freeing more aid in grant form. Besides, it is because of this kind of alteration and because it is supported by the fact that it is now mainly a government institution, and not just fifty per cent so, that it supports projects based on development criteria and is no longer purely a banking institution.

The attitude of industry and the trade unions

► *Along with European management, which is reluctant to invest overseas without guarantees, the unions for their part view the initiatives for a new world order with a certain amount of suspicion.*

How do you cooperate on these two levels in the Netherlands?

— Both verbally and in writing Dutch trade and industry has been hesitant concerning the new economic order because, in my opinion, people are afraid that such a new international economic order (NIEO) will affect the foundations of the present, capitalist, international system. In Dutch society we do a lot to provide information about what the NIEO means for the developing countries. We want to make it clear that it is necessary because the present system is really only in the interest of the rich countries. It leads to a lot of inequality and you may say to a waste of natural resources and insufficient use of human resources. Besides, in this information work we are trying to make it clear that the NIEO need in no way affect the pillars of prosperity in the West. On the contrary, it is in the interest of the West itself to contribute positively to an NIEO being achieved. I have the impression that at the present moment trade and industry are more aware of the concrete proposals which have been made and are less suspicious of this kind of proposal than they used to be. Actually the trade union movement in Holland has never spoken against this ambition of the development policy and cooperates fairly well with the government in the field of development cooperation. In the trade unions' annual publication, in which their demands in respect of the employment policy for the coming year are included, the unions have for the last few years been raising political issues which include some not connected with direct conditions of employment. In the last few years the trade unions have always included in their demands the insistence that development aid must be increased. This is a form of involvement which I very much appreciate. There is, however, a problem and this is in the field of employment. The proposals from the developing countries which have a negative effect on employment in Holland might in the long run have to start counting on a little less support from the trade unions than has been the case so far.

The transnational companies

► *In a recent interview in the "Courier", professor Tinbergen pointed out the im-*

(1) One Dutch guilder=0.36 UCE.



International economic cooperation

To inform public opinion and obtain its much needed support the Dutch government publishes a number of development magazines

portance of the role transnational companies may or may not play in restructuring the international economy. What is your opinion about this role?

— I don't think that multinational or transnational companies are good or bad in themselves but that it depends on their investment behaviour, their production decisions, prices, the question of where raw materials are processed, whether on balance it has a positive effect on the development process abroad or not. Sometimes it is negative on balance, sometimes positive. For that reason I believe that, since they are here, they can play a positive role if some conditions are met as regards the actual economic conduct of the policy. These conditions will have to be imposed by the government. I do, however, consider that in an NIEO a clear choice has to be made to restore the national government's autonomy in consultation with another national government as regards decisions about production, prices and the like. This autonomy has been somewhat diminished because of multinational companies which were given the chance to carry out their activities, and this autonomy has to be regained. But

this does not mean disqualifying multinational companies as such. I believe they can play a positive part provided these conditions are met. In addition, I think, and I think Tinbergen takes the same attitude, that they can somehow be an example of the integration which should take place.

The impatient Third World

► *Several times you have expressed the fear that the West has tried the patience of the Third World too much. What do you consider should be the first concrete steps in breaking this impending deadlock?*

— I believe we underestimate the impatience of the Third World and unjustly neglect their wishes, and we may have to suffer for this if, as a result, the whole international economic political situation does indeed become unstable. I believe that every society, both national and international, has a kind of tolerance limit as far as inequality is concerned. Once inequality becomes too great in a society, and this goes for the whole of society, and this goes for the whole of society, violence and chaos spring up un-

awares. Steps, therefore, need to be taken in the short term, in my opinion, in order to show developing countries that things are, in any case, getting better. At the moment I imagine that the developing countries have no such impression, since they only see a hard and negative front on the part of the rich countries and certainly of the large rich countries. This impression will have to be put forward by means of a number of concrete steps in the field of aid, which must be increased, and in the field of trade policy. A number of topics will be debated for a very long time and when such debate reaches a dilemma it must be sorted out. I am thinking, for example, of the multilateral trade talks within the framework of GATT which have completely stagnated at the expense of the developing countries. I am thinking, for example, of the conclusion of a new multi-fibre agreement which means a step forward as far as the export possibilities of developing countries in this field are concerned. I am thinking, for example, of a positive attitude in accordance with the discussions on an international commodity fund for financing the integrated raw material approach and also of a breakthrough in the field of debt prob-

lems. As soon as the developing countries notice this willingness they will maintain the opportunity to opt for a solution by way of consultation. This is what they have chosen so far.

I am quite amazed that they opt so fervently for a reasonable and not polarizing approach. I also believe that many representatives of the rich countries underestimate the fact that there is so much moderation to be found on the other side, moderation which could be replaced by a polarizing attitude if for once we do not advance a few steps from our side.

The Lomé Convention

► *One concrete action which is being carried out at present is the Lomé Convention. What can we learn from this convention in the context of future ACP-EEC relations?*

— In the Netherlands we have always vigorously debated the meaning of the association of the EEC with developing countries. The Dutch government is heartily in favour of this Lomé agreement because we consider it to be better than previous association agreements. In our opinion these were too restricted. This agreement is definitely less restricted and, moreover, it has received extra financial assistance, and thirdly the export stabilisation scheme has been added. The latter also has an effect on other areas of commercial policy.

I am of the opinion that the association agreements now due to follow, which no doubt will happen, will stretch even wider. More countries, more aid and more means of cooperation. If this doesn't happen, a situation will exist in which, because of their special relationship with the EEC, a certain number of developing countries will be separated from the rest. This is discrimination. There already has been discrimination. All possible proposals we make, for example, to give aid to non-associated countries, are always rejected by other countries, particularly France, African countries being a priority. On the contrary, I am of the opinion that the EEC also has a job to do in Asia—Latin America is less of a problem, but Asia is much poorer and a lot has to be done there, and I don't think it is right to continually keep it back from them.

It may also be that in the long run the export stabilisation scheme, which at the moment is very restricted, will operate in a discriminatory fashion because countries which cannot take advantage of it are going to end up in a more difficult market position. I must add that once this example becomes more worldwide, it will in itself be a good example to other rich countries, like the United States, and also show how one could start working on a worldwide stabilisation scheme for export proceeds from developing countries, for example within the framework of international organisations. It sets a good example in itself and we have to ensure that it remains a good example by expanding its scope.

Summing up and looking ahead

► *In May Parliamentary elections will be held in the Netherlands. Without anticipating the outcome, what do you wish to achieve in the coming years should your mandate as minister be extended and what, in the first place, have been the greatest achievements during the period of your previous mandate?*

— I think we have achieved quite a lot. Firstly, as regards aid we have virtually completely fulfilled the terms of our election manifesto. I find this in itself already quite an important achievement in a situation which turned out much harder than we anticipated when we wrote the election manifesto. A number of points can be deduced from this. First of all I find the large increase in aid very important. We have tried to achieve the aim of 1.25% of the gross national product, not in the last but the year before last of this cabinet period. Despite all the problems, it was achieved, I find this the greatest achievement.

Secondly, the fact that the aid is aimed at many more countries, and is based on very clear development criteria, I find the second most important change in the policy as it is now, compared with the previous cabinet's policy.

Thirdly, our effort to link the aid as directly as possible to the basic needs approach. This has not yet been achieved completely.

In the fourth place, as I said when I became a minister, in the past the development policy was rather a patchwork, with a number of conflicting set-ups.

Quite often the Netherlands took back with the right hand what it had given with the left. I believe that in the past cabinet period the policy has become more integral and creates less conflict between the parties with regard to trade policy and the like, and I find this very important.

The fifth item which I find important is the proper manner in which Surinam has become independent and how, after that, we have entered into a development relationship with this country.

These are the five main categories. We may say that from the Netherlands we have managed to achieve a lot in the field of IFAD within the framework of other international negotiations but we are always reminded of the fact that we are only a small country with not very much real influence. Really important decisions are taken by a few big countries, America, Japan, France, Germany and Britain. We have little influence on them. We do try to operate like a sort of catalyst, but this seems to be more difficult than I had hoped.

► *And the future?*

— First of all we have formulated a considerable restructuring of the development policy based on development criteria. A bit of a gap has developed between what we want and what actually happens in practice. It always takes time to get your policy carried through. I think that the main aim is to reduce the size of the gap, putting the emphasis on carrying out the policy and drawing from it some historical consequences. That is point one. Point two is the continuation of the present policy as far as the increase in aid money is concerned. Thirdly, to try and do as much as possible of what we have been doing in the past few years on the international scene, namely to act as a catalyst within and from the EEC. To perform a sort of bridging function together with some other countries to show the developing countries that it is not a large, hard, negative block in the North of the world but that other possibilities do also exist. These are really the three most important major tasks I would set myself if I became minister of development cooperation once again, which is something I would indeed choose to be. □

Interview by
Roger DE BACKER

The Lomé Convention and women in the developing countries

by Edele KRUCHOW

"It would be appropriate to ask our farmers, especially the men, how many weeks a year they work. Many do not even work for half as many hours as the wage-earner does. The truth is that in the villages the women work very hard. At times they work for 12 or 14 hours a day. They even work on Sundays and public holidays. Women who live in villages work harder than anybody else in Tanzania. But the men who live in villages (and some of the women in towns) are on leave for half of their life. The energies of the millions of men in the villages and thousands of women in the towns which are at present wasted in gossip, dancing and drinking, are a great treasure which could contribute more towards the development of our country than anything we could get from rich nations.

We would be doing something very beneficial to our country if we went to



Mrs Kruchow is a Danish member of the development committee of the European Parliament.

the villages and told our people that they hold this treasure and that it is up to them to use it for their own benefit and the benefit of our whole nation."

This reprimand to the male population came from President Nyerere of Tanzania. It should be seen in the context of the Arusha Declaration of 1967, which laid down the guidelines according to which the country was to be governed.

Another of Africa's new leaders, Patrice Lumumba, before his early death in 1960, also expressed his view on the same subject: "Ought we not to abandon this tradition which reduces the lives of our womenfolk to a kind of disguised slavery?"

These are harsh words from Nyerere and Lumumba, but anyone who has had an opportunity of travelling in Africa outside the large towns and of observing a wide variety of life in and around villages has felt the truth of these remarks.

On the other hand, in the West, where people in our century have gradually grown accustomed to all kinds of conveniences in daily life, the majority of them just do not have the imagination to conceive of a way of life where the woman in an African village every day has to go and fetch the household's supply of water in a pitcher carried on her head perhaps several hours' walk away from a dwelling lacking both electricity and gas.

With Nyerere in Tanzania so candidly exposing the facts surrounding the working conditions of women in the villages and with politicians in the developing countries of Asia and Africa also aware of the situation, one would think that the chances of radical change rapidly taking place would be very good.

In several countries, including Tanzania and India, legislation has in fact also included sections which expressly strengthen the position of women, but

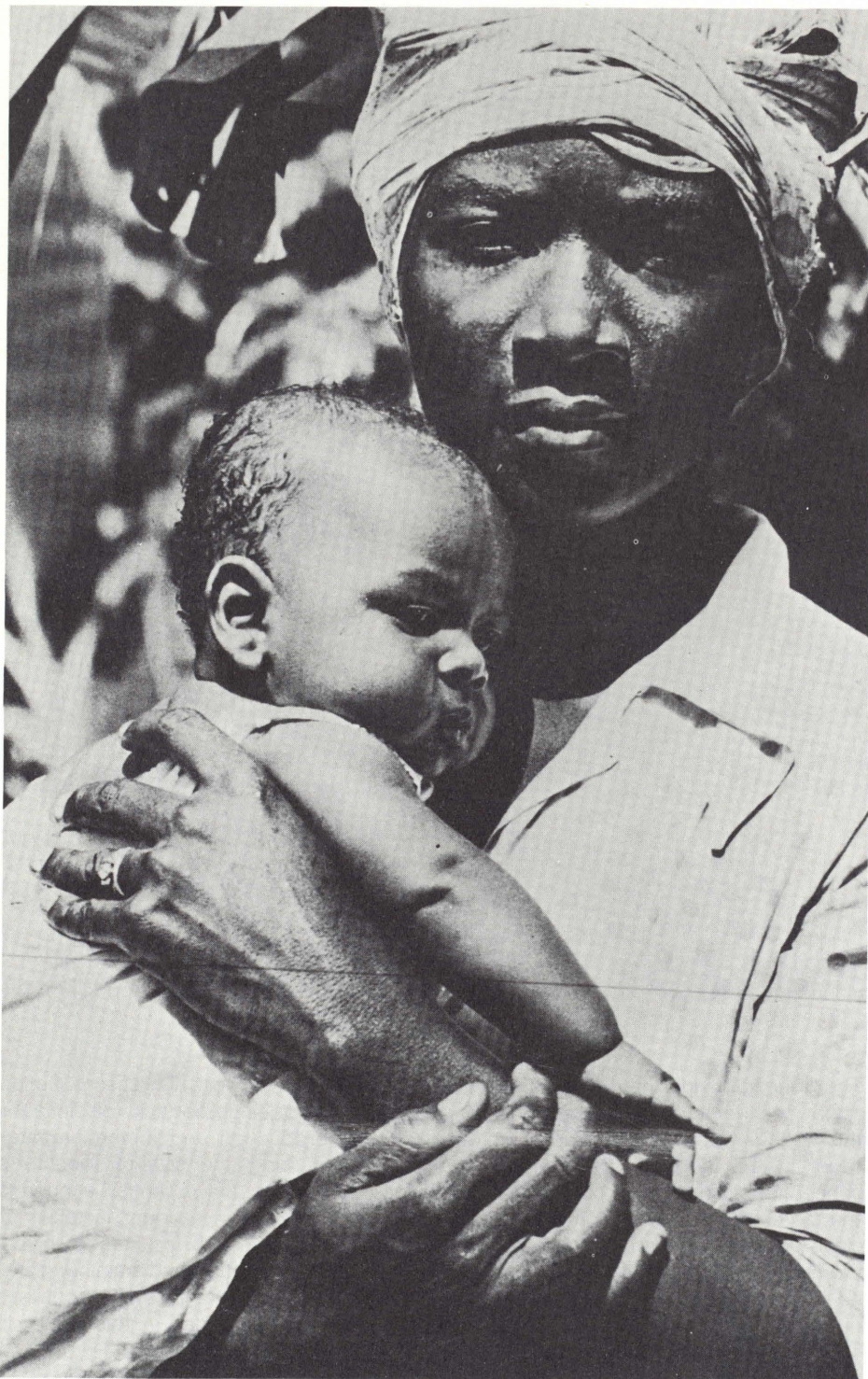
for any legislation to succeed it must have the necessary fertile soil, particularly in areas where contact between the capital and country districts is rendered difficult by poor communications, illiteracy and an economy incapable of supporting adequate social and educational facilities. Nor is it simply the lack of material goods that make the difficulties so great. Our customs and mentality differ widely according to the part of the world in which we are born and grow up.

In many developing countries, the family and family solidarity based on the perpetuation of ancient traditions therefore still provide a social safety net, even though new legislation is breaking with old customs. Marriages are still not made on the basis of freedom of choice between young people but are arranged between their parents and grandparents; weddings are celebrated according to ancient tribal rituals or religious traditions, and all this irrespective of the fact that, according to the law, people now have greater freedom.

Marriage by purchase and polygamy are part of the work pattern. It is still possible, for instance, for a woman in an African village to regard another wife as an extra pair of hands in the field and, hence, as a useful addition to the family. A woman who does not provide her husband with children is unfortunate, for it is the children who will have to look after the old members of the family; it is therefore natural for her to implore her husband to take another wife, even though legislation and political attitudes in the distant capital are against polygamy.

An active member of Tanzania's women's movement, Rhoda L. Sichali, wrote in the Danish periodical "Kontakt" (No. 1, 1973/74) on the struggle between the old and the new and on how new ideas from the West that were supposed to benefit women had also given girls bad habits.

Taking a wider view, I feel that her argument must be seen against the background of the fact that in Africa, as everywhere else in the world since the advent of industrialization in western Europe, we are witnessing migration from the country to large towns. For many



Jamaican woman

Giving birth is a woman's role, but it shouldn't deny her equal rights with men

people—and particularly for young people of both sexes—the town is seen as the promised land where it is possible to acquire all kinds of industrial products and where the individual sees the

chance of financial success. But towns in developing countries nowadays contain vast impoverished slum areas. Rhoda L. Sichalli's argument must be judged in this context: "it has now come to

pass that all children must be educated and learn to manage for themselves. Traditional marriage no longer intervenes and girls marry according to their own wishes and choose the person they want. This is what we have been asking our parents for many years and we thank them for their understanding." However, she then continues: "the old custom was in many respects bad, but it was also good in some ways. It was bad because girls were forced to marry and did not have an opportunity of choosing the husband they wanted. They had no chance of acquiring an education or getting a job, and neither were they able to help their nation in its struggle for independence. They knew nothing about the country we live in... but the old custom was good because girls learned useful traditions and it was not easy for a girl to come into contact with a young man who was not her husband. There were no illegitimate children. If a man divorced his wife, he had to take the children with him. There were no streets where girls lived alone and nowadays this is a problem in our cities..."

The task of bringing about changes in the position of women in developing countries therefore implies that anyone who sincerely wishes to see equality for women throughout the world must realize that the common human ideals of freedom and equality are based on life styles which differ so widely that situations which we in the West regard as natural or as ripe for change must elsewhere be appraised independently and according to different standards than the ones with which we are acquainted.

In Denmark we have a museum at Sorgenfri made up of several centuries-old farmhouses complete with all implements. I have sometimes visited it with guests from Africa. When bending our heads in the low-ceilinged rooms and observing household equipment and implements, the reaction of my guests has often been to say that if people in Denmark lived under such conditions just a few hundred years ago, then there was real hope for Africa. The remarks of Africans on such occasions have led me to reflect that we have never, ourselves or in relation to developing countries, attached sufficient importance to recognizing the overall context of the headlong technological development we are experiencing today in our part of the

world. It permeates our society twenty-four hours a day, embracing all aspects of work and leisure, and it cannot be supplied piecemeal and out of context to remote areas in developing countries. Our civil liberties and our maintenance of religious traditions or break with those traditions in modern Denmark cannot be seen outside the context of our technological and economic development. This we must acknowledge if we want to join in helping women in the developing countries.

Let us therefore consider just for one moment the religious aspect of our own cultural heritage: the Christian religion.

If, in the circles we move in, someone asks whether anyone knows a passage by St. Paul the Apostle concerning the position of women, they are immediately given the passage from the Epistle to the Corinthians to the effect that women shall hold their tongues in assemblies. No one recalls the same apostle's letter to the Galatians which states: "here there is neither Jew nor Greek, neither man nor woman, neither slave nor free-man, we are all one in Jesus Christ." Who is to blame for this failure of memory or lack of knowledge, displayed by most of us, concerning the Epistle to the Galatians? The words contained here could rightly be interpreted as a draft version of one of the points of the UN's Declaration on Human Rights of 1948. The truth is probably that since the Christian church is an organization dating from the early Middle Ages, it has also been in the habit of giving man the leading role in society and in the family, even though there is no passage in the Bible that actually justifies this. For the same reason, we are also accustomed to showing greater knowledge of the phrase that women shall hold their tongues in assemblies.

Whenever religious belief influences the working conditions of women in the developing countries, we must therefore recall our own rigid habits of thought. Thus Indian women are often still regarded as "unclean" when in confinement and when they menstruate, irrespective of the fact that Indian legislation is nowadays supposed to liberate them from these ideas. Their "unclean" condition means that they may not prepare food, and consequently this has the result that others must take over this part of their work at regular intervals.



Reprinted from the UNESCO "COURIER"

Throughout the world women do the drudgery

The Christian in the Western world ought not, however, to be so amazed at this notion. After all, the Christian faith's belief in the Virgin Mary's immaculate conception also implies continuation of the belief that there is something "unclean" connected with the sexual life of women, even though fortunately this is no longer reflected as a daily feature of our lives.

The World Conference of International Women's Year in Mexico in 1975 also dealt with "the integration of women in the process of development as equal partners with men." Article 9 in the World Plan of Action to achieve the objectives of International Women's Year accordingly contains the statement:

"In many countries women represent a large part of the work force in the ag-

ricultural sector. For this reason and on account of their important role in agricultural production and in the preparation, processing and sale of foodstuffs they constitute an essential economic factor. If, however, account is taken of agricultural workers' lack of technical equipment, education and training, it becomes apparent that in many countries the position of women in this sector is doubly disadvantageous."

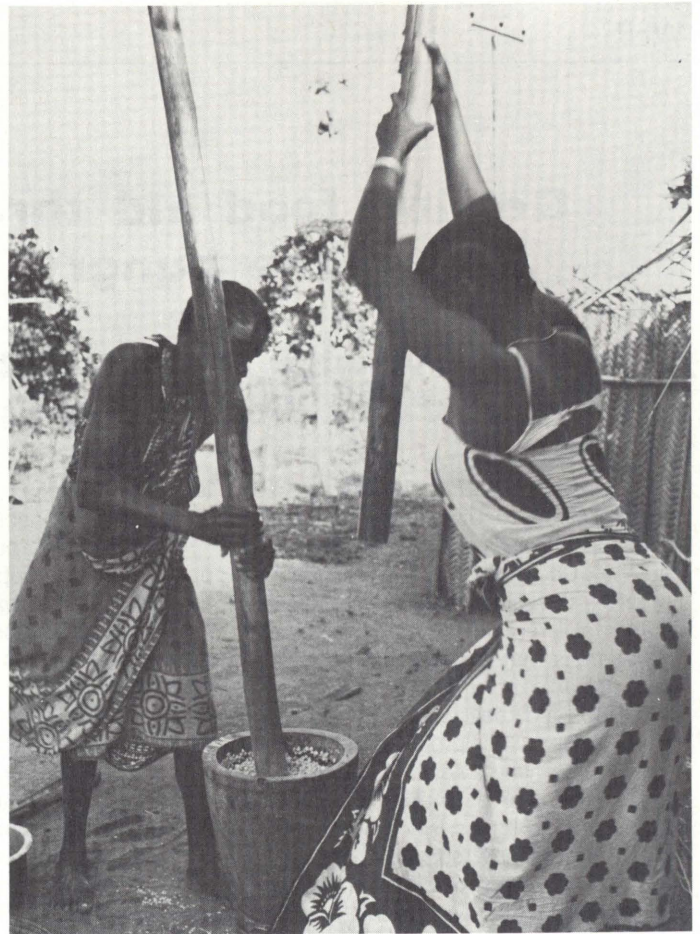
Article 93 contains the following:

"Governments should seek new resources to aid self-help activities, such as, for example, training programmes in village development and factory management open to both sexes on an equal footing.

Special efforts must be made to increase the participation of women from



Care of the children...



and preparing the food

rural areas in the formulation of national plans for the integrated development of country districts."

To achieve results within this framework, we must understand and respect one another's vastly differing circumstances and mentality and, above all, we must not seek to bring about overly abrupt changes in life styles. Among the **measures contained in the Lomé Convention**, which are referred to in Protocol 2, Chapters 4-7, a novel idea has, however, been broached—"microprojects", which in principle concern rural areas. **They include inter alia dams, wells, water mains, silos, storehouses for the storage of foodstuffs, crops, local roads, elementary schools, and social services centres; the request to carry out a project of this kind must come from the authorities in the developing countries.** "Microprojects" seem particularly well suited to involve women on an equal footing with men in all stages of their implementation.

If men and women in the developing

countries that have acceded to the Lomé Convention were willing to exploit the potential which the initiation of microprojects in the many impoverished agricultural areas in Asia and Africa represents, it might perhaps be possible for balanced independent development to get under way, one logical result of which would be **equal educational opportunities and equal division of working hours for both men and women.** The working day of women living in African and Asian villages, which was mentioned for instance by Nyerere, will clearly need to be shortened, if they are to participate in education and systematic improvements; otherwise they will simply not have any surplus energy for either acquiring new knowledge or for keeping up already acquired skills. The many countries of the world have been marked to varying degrees by the advance of industry and technology and, in this respect, they each have their own experience of the position of women.

The various regions in the developing

countries will also be able to tackle microprojects each in its own way and on the basis of its own needs and experience. It will be possible to make headway by exchanging these experiences in an atmosphere of mutual understanding of both the old and the new, not only covering Western economic theory and statistics but also including an awareness of local conditions. These on-the-spot local conditions will also include the region's old pattern of living and its roots in accepted ways of thinking. New material opportunities will perhaps have the greatest chance of being exploited in areas where they can be adapted to parts of this old pattern.

Yet it is the developing countries and the men and women in them who must themselves take the initiative in starting microprojects and in applying for the necessary resources and aid through the channels prescribed by the Lomé Convention. □

E.K.

Getting food aid through to the hungry

Interview with Thomas Robinson, Director of the World Food Programme

Mr Robinson met EEC officials in Brussels in March to discuss food aid and speed up administrative procedures. He told the "Courier" he felt "very optimistic" after the talks, although certain difficulties still remained.

"Whereas national governments are normally able to indicate to us how much food aid they will be able to provide for a two-year programme, starting 11 months ahead, the EEC can only do this for one year at a time. This makes it very difficult for us, since all our food, except emergency supplies, goes into projects which require considerable time for programming. It's difficult to utilize effectively food aid given at short notice", he explained.

The Community is the third biggest contributor to the WFP (after the USA and Canada). It takes longer to get clearance from the nine governments represented in Brussels than from a single national administration, but one way around this might be for the Commission to indicate its forward planning subject to approval from the Council of Ministers, Mr Robinson said (1).

The world food situation

Despite the continuing "acute" need for food aid, "for the world as a whole, the food deficit is smaller than it was two years ago. This year's crops were good in south Asia, with the exception of Sri Lanka, and the situation is on the whole fairly satisfactory in the Sahel zone, although there are food shortages in Mauritania, Senegal, northern Chad and some parts of Ghana. The situation

is nothing like as bad as in the early '70s", Mr Robinson said.

"However, the purpose of the WFP is not merely to supply food in bulk, as a sort of foreign exchange support, as most bilateral donors do, but to get food to particular people in particular projects. In most developing countries, large numbers of people are unemployed or underemployed, and the fact that there is adequate food for sale in the market doesn't mean that they have the money to buy it. We think one solution is to give people food as an incentive, or as part of their wages, to work on a project. This makes it possible to get things done that require outside help, and to get food to people who would not otherwise be able to buy it. Similarly, our food aid for mothers and children



Thomas Robinson

The world food problem remains acute

performs a function which no amount of food supplied to the market could perform. We're trying to meet nutritional rather than commercial requirements.

"We've been in the business for 14 years and we no longer have difficulties in getting this policy across. Certainly there are practical difficulties, problems of transport, storage, etc., but these are being overcome. And the authorities in the countries where we operate understand our policy much better than people in donor countries", Mr Robinson added.

Criticisms of food aid

A familiar criticism of food aid is that it can blunt the urgency of food production programmes in developing countries. Mr Robinson agreed that *a priori*, food aid supplied to the market on concessionary terms probably serves as a disincentive to production.

"But if the food is supplied not through the market, but to people who would not be able to buy on the market in any event—in other words, if the demand is increased almost as much as the supply—I don't think it really has any effect on the market. And where there is a project to improve food production I think it's an incentive, whereas food aid to the market tends to lower prices and be a disincentive to farmers. The distinction should be made between merely increasing market supplies, which may serve as a disincentive, and directing food to people who then eat a great deal more than they would otherwise, where it is an incentive", Mr Robinson explained.

Another criticism of food aid is that it is not always sent where it is most needed. Mr Robinson said the WFP used "two sets of criteria" in distributing aid—type of project and choice of country. The WFP has backed a great variety of projects, including urban and industrial schemes, but with the cereal crisis of 1973, he said, its priorities were narrowed down to rural projects in the poorest and worst-hit countries. The emphasis has since been on improving farm output and getting food to the

(1) In March the EEC Council of Ministers turned down a proposal to programme food aid over three years — Ed.



From their earliest years, some children today still suffer from hunger



Birth control instruction in Kenya: reducing the number of mouths to feed is one of Africa's social and economic concerns

most vulnerable population groups. "As far as selecting individual beneficiaries within the countries is concerned, this is entirely a matter for the governments. We do not operate the projects ourselves. Our supply contract is with the government", Mr Robinson pointed out.

Asked whether he felt that food aid was sometimes used as a political means of influencing Third World governments, Mr Robinson said, "I can see where food aid might be regarded as a weapon at times, but I don't think the World Food Programme wields this weapon. We're completely apolitical. We're criticised on the one hand for giving food aid to a country as far to the right as Chile, and on the other for aiding countries as far to the left as Vietnam and Cuba. We disregard all such comments. This doesn't mean that individual donor countries contributing to the WFP may not say, 'you can't use our food aid for this particular country'. But since we're multilateral and draw food from many countries, this has not greatly inhibited us so far".

The problem of resources

The main problem facing the WFP is that of resources. Mr Robinson said: "with the resources we can count on. I don't see any big changes in WFP priorities in the near future. I think the world food problem is going to remain acute, so we will continue with projects to increase food production and counter malnutrition in the poorest countries. One change I'm hoping for comes from an idea put forward at the World Food Conference, namely that countries with fluctuating farm production should set up food security reserves in good years so as to have something to draw on almost immediately in the event of crop failure. I hope WFP resources will prove sufficient to contribute to these reserves.

"But our chronic problem will be one of resources. It is aggravated by major changes in price levels. For the first 10 years of the WFP, prices were extremely stable thanks to the large reserves of cereals in the USA and Canada. We make all our commitments in quantitative

terms—in amounts of food—but most of the pledges made to us by donor governments are in monetary terms. When, for instance, the price of wheat more than trebled in 1973, the amount we could purchase shrank by more than two-thirds.

"It put us in an extremely difficult position. This is a sword hanging over our heads all the time. For all our caution, we can find ourselves overcommitted if there is a bad harvest somewhere and prices go up. With stable prices we hope the WFP can continue to expand to a point where we can deliver \$4-500 million worth of resources a year. Last year our disbursements were just under \$300 million. We hope to be able to stabilize at a level of around \$450 million a year, including \$300 million for projects and \$40 million for emergencies. Our pledging target for 1977/78 is \$750 million and for 1979/80 we are proposing a target of \$950 million", Mr Robinson said. □

Interview by L.P.

SUDAN

Interview with President Gaafar Numeiri

During the Unity Day celebrations on 3 March, President Numeiri outlined to the "Courier" his views on the Sudan's recent evolution, its development prospects over the next few years and its relations with both the Afro-Arab countries and the EEC.

Nominated at the second national congress of the Sudanese Socialist Union in January as the sole candidate in the presidential referendum to be held later this year (1), he explains what he calls "the Afro-Arab culture fusion" in the Sudan and stresses his determination to achieve his country's economic take-off.

► *The Sudanese Republic has celebrated the 21st anniversary of its independence. What is the Sudan, after two decades of self-governing development?*

— Since independence and up to 1969 the Sudan survived an unstable state of economic and political development. However, by the advent of the May Revolution, a radical pattern of development started to penetrate life in the Sudan. This rapid development is reflected in three main areas of achievements, namely the solution of the southern problem, the setting up of the Sudanese Socialist Union and the huge development plans.

The Sudanese, both northern and southern, were sick and tired of the protracted conflict in the south that has been draining resources and causing untold devastation and loss of life. The 1972 peace agreement did not only of-

fer the south self-rule but also provided it with a new social status which in turn helped the consolidation of national unity.

One of the major developments on the political level is the setting up of a broadly-based political organization, the Sudanese Socialist Union. The importance of the Union, being the chief source of political decision-making, stems from its three proclaimed objectives; national unity, economic progress and social development. The second national congress of the Sudanese Socialist Union, convened last January, is a political landmark and an opportunity to review the system of developing power through popular organizations, which was set up by the first congress. The most important outcome of the congress is the election of the President, the executive bureau, the SSU central committee and the approval of the six year plan.

Political stability and the active participation of large numbers in the government's administration are vitally important for a country which stands at the threshold of tremendous economic development.

At the May Revolution, the economy seemed in a very poor shape. But seven years of strenuous and sustained effort to stimulate the economy have at last paid handsome dividends. The GDP grew over the period 1970/71 and 1974/75 by 5 percent per annum. In fact the total investment during these five years reached £S250 millions against the £S215 million originally targeted for the five year plan (2).

► *Unity Day in March celebrates the 1972 Addis Ababa Accord. This was an internal solution, without foreign interfer-*

ence, which brought peace to the Sudan and semi-autonomy to the south after 17 years. You have taken a personal commitment to initiate reforms assuring a balanced distribution of income between all areas of the country. How is this being done?

— A basic social objective of our development plan is to distribute benefits of development as equitably as possible among various income groups and regions. In order to achieve that objective, the development of traditional agriculture including livestock must receive more attention than in the past. Modern inputs, credit to hire farm machinery and feeder roads would be provided in such areas. Similarly, technical assistance and access to credit facilities would be provided to small traders, artisans and small-scale industries.

Also policies of expenditure on health, education, cooperatives and social welfare would be so designed as to achieve a wider distribution of social services in different regions. Equitable distribution of development expenditure among various regions can go a long way towards achieving the regional balance.

The Sudan's "Afro-Arab reality"

► *The Sudan is often said to have a bit of everything in Africa. Would you say the country is looking for an identity between Africanism or Arabism?*

— The Sudan experiences an Afro-Arab human and political reality. It relies upon an ancient cultural heritage going back thousands of years which is the result of the Afro-Arab culture fusion. Our culture has flourished since ancient times in constant contact with peoples and cultures of the Arab region, the ancient Near East, the Red Sea coasts, the eastern coast of Africa and West Africa.

The present Sudan is a miniature continent by virtue of being the largest country in Africa, where two main groups of people live, each with its own identity even though they are not equal in number. One descends from Arab or-

(1) President Numeiri was voted back in for another six-year term in April.

(2) 1 £S=approx. 2.6 EUA.



Claude Cheysson with President Numeiri
"Closely compatible" ideas

igins and the other from non-Arab origins. After the solution of the southern problem we accomplished the fusion and security to the peoples of the Afro-Arab Sudan in a wonderful national unity, which employs its energies in construction and progress. Besides, it is an achievement which enriches our experience and march towards implementation of its objectives. Thus it was not surprising that the Arab-African and non Arab-African leaders hailed the success of Afro-Arab unity in Sudan through the establishment of regional autonomy in the southern Sudan. These leaders expressed their full consent to this victory by moral and material support for Sudan, because in it they saw an indicator of total unity.

Our Afro-Arab character is the backbone of our philosophy. Therefore there is no contradiction in our membership of both the Arab League and Organization of African Unity, our attitude in principle towards the danger of the racial regimes in Africa and Israel and our support for the Arab and African liberation movements. From our Afro-Arab roots, we believe in the oneness of fate and aim.

Also there is no contradiction when we speak about the African and Arab unities. When Africa speaks about African unity it doesn't differentiate between what is called Arab Africa or Negroid Africa. Here the issue includes the Sudan as well as Algeria, Ghana, Senegal and Somalia despite the different cultural characteristics. Also we shouldn't forget that we live in a world tending towards unity, gathering its energy for the promotion of its people and attainment of its ambitions for a better living.

The unity which we all wish as a strategic goal is impossible to achieve unless it is attained in the different parts of the same country.

Cooperation with Arab countries

▶ *You cooperate closely with the Arab world, which has provided the Sudan with considerable aid including a US\$ one billion development scheme. This is in the Arab countries' own long-term interests. What are the main characteristics of this cooperation and how much aid do the Arab countries provide?*

— Arab capital, which we need, has been involved for a number of years in our development efforts. This involvement covered agricultural projects, infrastructure, agro-industries, and most recently real estate and hotel accommodation. This cooperation takes the form of direct government grants, soft loans extended by the Arab funds and governments or direct participation in the equity of certain enterprises. A recent healthy phenomenon is the keen interest shown by Arab private investors, some of whom are now actively involved in a number of projects in the Sudan. Besides, we have designed a new mode of cooperation, namely the creation of joint investment companies to pool resources for investment in selected viable projects in the Sudan. Such joint companies have been established with Kuwait and the United Arab Emirates. Because the experiment proved a success, we are confident that similar companies could be initiated with other Arab countries.

Besides bilateral cooperation with the Arab countries, a multilateral type of cooperation has recently evolved also. I mean the newly established Arab Authority for Agricultural Investment and Development (AAAID). This new Authority represents a joint Arab effort aiming at the development of the vast agricultural potential available in some of the Arab countries, through integrated plans. Because the Sudan possesses great potential in agriculture, it has been selected as the first country to host the proposed joint Arab effort in the field of agriculture.

The investment programme of the Authority in the Sudan will be implemented during 1976-1985 and involves about 100 integrated investment projects costing nearly £S2.2 billion; of which £S 1.5 billion represents the foreign component. The bulk of this sum is expected to come from Arab resources.

▶ *Like other developing countries, the Sudan is short of skilled labour. The Arab oil countries are drawing off skilled workers. How do you reconcile this "brain-drain" with your own need of skilled labour for the country's development?*

— In comparison with many developing countries, the Sudan does not have a population problem. The level of man-



Irrigation will help turn the biggest country in Africa into one of the continent's main cereal producers

power and skilled training achieved in the Sudan is higher than in most other neighbouring countries. Yet there has been a seasonal shortage of unskilled labour in the agricultural sector which has been quite marked in recent years.

It has become apparent, however, over the last decade, that the Sudan is lacking certain types of skilled manpower (technicians, accountants and managers), the demand for which has been expanding rapidly with the higher level of investment, while the supply has been inadequate as the education system was

historically not moulded to meet the needs of our economy. In addition, an outflow of Sudanese skills to the Arab oil states has been increasing in the last few years.

Despite our need for skilled manpower, we felt that it was our obligation to assist our Arab sister countries and to be involved in their development effort as they are involved in ours. Moreover, our system does not deny the right of the individual to improve his earnings and skills by working abroad. In the long run, the Sudan will benefit substantially

from the heightened professionalism and broadened experience which our citizens abroad can bring back home. However, this should not be understood as an encouragement to emigrate. It only means that we are flexible on the matter. But lately we have felt the need to organize the emigration of skilled personnel in a manner that would give priority to our local need for their services. Besides, our effort is directed towards reviewing our education system with the aim of training the necessary cadres in sufficient numbers to meet our needs.

No role of mediator

► *Oil price increases have hit developing countries hard, including your own. Do you feel your membership of the Arab League can give you a role of mediator between the oil producers and the developing countries?*

— Mediation can be said to apply in a state of misunderstanding and/or confrontation. We do not observe this feature in any aspect in the relations between the Arabs and other non-oil producing developing countries. On the contrary, we witness a common understanding between them in various areas of a political, economic and financial nature, and a consequent collective coordination of efforts for the realisation of goals of common interest. The developing countries support the concept of sovereignty of states over their natural resources and have, moreover, shown considerable understanding of the rationale of oil price increases. If you have a strategic raw material, oil or something else, you would not expect someone else to question your freedom in pricing this raw material for the betterment of your people. This is exactly what the Arab oil producing countries are doing. It is, after all, a question of structural imbalance and economic disparity between the developing and developed countries. This imbalance is demonstrated by the lack of indexation as between the prices of raw materials exported by the developing countries and what they pay for the industrialized goods that they import from the developed countries. Thus for us to play a role of mediator in such circumstances is out of question. We do not intend to do that.

Triangular cooperation

► *Do you think a more balanced triangular Euro-Arab-African cooperation can be arranged than simply having Europe provide the technology and the Arabs provide the money?*

— Triangular cooperation is something which we in the Sudan have been experiencing for some time and I believe it can be applied in other resource-rich developing countries in Africa. The establishment of Arab financial intermediaries (development banks and funds) is,



The Sudan is aiming to become a major sugar exporter

I believe, a further step towards a balanced and stable approach to trilateral cooperation. These financial intermediaries will lead to new avenues of complementarity and better methods for factor combination for development purposes. They will also, through their financial facilities, permit the establishment of development projects to which African countries give priority in their development strategies. What matters here is the issue of technology from the European or the industrialized countries.

We are not after the latest technology *per se*, but we seek some technological means which can be adapted in countries like ours and which will necessarily generate some employment. What

makes trilateral cooperation more predictable is, I believe, the catalytic role the Arab financial intermediaries can play and the nature of the cooperation itself—a partnership in development rather than a mere combination of factors for a limited purpose. Added to this is the fact that there are tremendous possibilities for enlarging the base of trilateral cooperation.

Yet the whole issue should be looked at as a dynamic; specifically, the flow of money from the rich Arab countries for aid or investment in our country should not be taken as an alternative to the continuation of financial aid from the developed countries. The two sources are complementary. They are both needed.

Balance of payments: a temporary problem

► *Several donor countries are providing long-term aid to the Sudan, but what about the balance of payments problem in the short term?*

— The balance of payments problems and the foreign exchange constraints are general features which characterize most of the less developed countries' economies in the short run.

Sudan's balance of payments figures show that exports and imports grew during the period 1970/76 at differing rates, i.e. 13% and 25% respectively. The increase in total imports was mainly attributable to imports of a developmental nature. Added to this was the worldwide recession, coupled with inflation during the period 1973/76, the aftermath of which was a huge payments imbalance of the order of \$35 bn for the less developed countries in their totality. Accordingly, the Sudan's exports slumped during that period and so did their prices. Also the Sudan's imports, especially those tied to development projects, were hit by the sharp increases in the prices of processed goods and capital goods. The balance of payments problem facing the Sudan is not a structural phenomenon but of seasonal incidence and as such it is a temporal problem.

The Sudan will gradually become self-sufficient in and even an exporter of such commodities as sugar, textiles and wheat and these problems will tend to disappear.

No difficulty in obtaining foreign finance

► *In recent years the Sudan's development has been diversified and "internationalized" and relations with the West have been constantly improving. How do you see the position of the Sudan on the world scene?*

— In recent years our economy has been growing faster, for which there are two reasons. One is that through our planning experience we became aware of the bottlenecks in the economy and hence we could programme our priorities more appropriately. The second reason is that we no longer encounter any

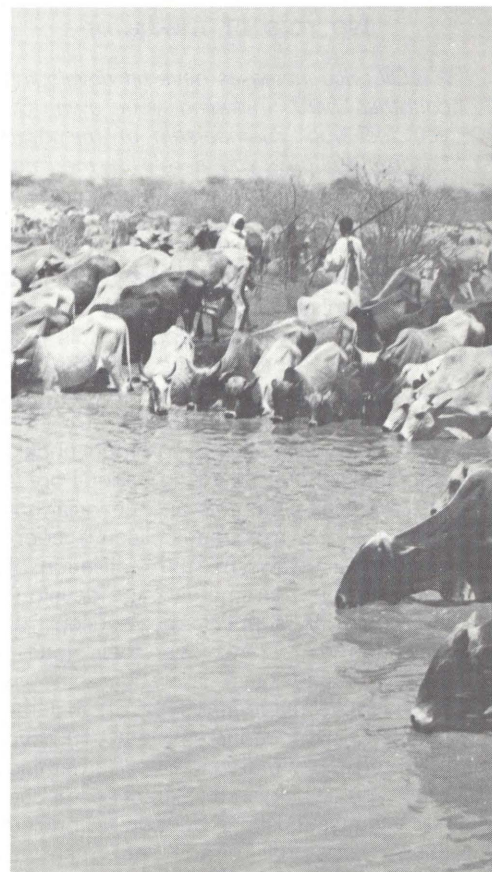
difficulty in obtaining finance for our development programme from friendly countries and international financial institutions. The availability of finance for our development plan made it possible for us to invest in all economic sectors; rather than having one product dominating our export list, we will soon have a variety of commodities for export. We plan to invest about 2.6 billion Sudanese pounds during the coming six years. Our investment programme gives priority to infrastructure projects but does not neglect other economic and social services like education, health and housing. Foreign loans and aid are expected to amount to about 50% of the total investment.

In our efforts to seek finance from foreign sources we resort to our friends who can provide us with aid on easy terms. At the same time we try to get the best prices for our exports. Recently the Sudan has been the centre of attention because of the great potential it possesses for food production. The increasing attention to the world food situation improves our chances of obtaining more concessionary aid for development.

A balanced economic order

► *What is your view on the present overall relationship between developing and industrialized countries and the main discussions held between these groups of countries?*

— Until recently the relationship between the developing and industrialized countries served only the interests of the latter. That relationship was in the form of flow of raw materials from the developing to the industrialized countries, where they are processed and reexported. The relationship is taking a somewhat different shape now because several developing countries have set up their own industries. Therefore, rather than importing manufactured goods, these countries seek technical assistance and development equipment from the developed countries. The current discussions are expected to result in a formula for trade between the two groups whereby the developing countries will get better prices for their exports and stable export receipts. If the two sides



The Sudan's agriculture

succeed in reaching such an agreement then there will be a new pattern of relationship between developed and developing countries which will contribute to the establishment of a just and balanced economic order.

Optimism on future Sudan/EEC relations

► *How do you see your relations with the Community evolving?*

— Our ties with the EEC are certainly evolving in a positive and encouraging manner. All indicators, economic and otherwise, make us believe so. Two major steps that have been taken so far in building a solid basis for a new formula of relationship between the Sudan, among others, and the Community, are: the coming into force of the provisions of the Lomé Convention; and the progress of the Euro-Arab dialogue. What has already been achieved through these is the logical extension of an old histor-



potential includes stock-raising

ical, cultural and commercial link between Europe and the Arab world, as well as between Europe and Africa. You may also agree with me that there has emerged a mutual political will, supported by a relentless effort, geared towards the development of our relationship with the Community. Thus we are bound to achieve a lot together for our mutual benefit.

It is gratifying in the relationship of my country with the Community that the EEC has recognized the tremendous possibilities of executing a number of viable projects in the Sudan. This process has already started. I have also been told by some of our friends, who belong to the EEC, that an EEC/Sudan formula of cooperation can provide a model for cooperation between developed and developing nations. Of course when they said this they had in mind the considerable potential of my country, together with its strategic role in developing and linking the geographic region where it belongs. I had the opportunity of discussing this theme with our friend Com-

missioner Cheysson on two occasions when he visited us last year and the year before. Our ideas on the matter were closely compatible. I never forgot his encouraging remarks and his enthusiasm for a strong future relationship between the Sudan and the Community. Since then I have felt more optimistic about the way the future relationship of the Sudan with the Community is expected to evolve.

Borders should be links rather than obstacles

► *The Sudan is the biggest country in Africa and has common frontiers with eight other countries; how important do you consider regional cooperation, especially with other ACP states?*

— We consider regional cooperation extremely important. At present we have a number of joint projects with our neighbours. Most of these concern road construction. For example, El Gadaref to El Gallabat Gondar (Ethiopia) and Nyala-Birao (Central African Empire) road projects are being considered and when all the studies have been completed we will consider their submission for financing by the EEC and/or any other international financing institutions.

Also, we attempt to develop areas at the borders. Our primary objective in the regional development of border areas is the transformation of these areas into a link rather than an obstacle between us and our neighbours. It is well-known that the present borders between African countries are artificial, and they do not take into consideration the natural flow of human and animal populations as well as the geographical, social and economic integrity of the areas that fall on either side of the borders. Consequently, our regional cooperation projects in the long run should aim at the reestablishment of the integrity of these areas. This applies to all the border areas that we share with our eight neighbours.

President Numeiri's view of the future

► *At the recent second national congress of the Sudanese Socialist Union you were nominated as the sole candidate for*

the Presidential referendum to be held later this year. What would you like to achieve during a new term as head of state?

— The new term of office coincides with the period covered by the forthcoming six year plan for economic and social development. Therefore, it is my responsibility to see that the economic and social objectives as stated in the plan are realised. Most urgently we aim to achieve an accelerated growth for the Sudanese economy and a strong national unity. Our means for realising these two objectives are numerous: i) the consolidation and expansion of basic infrastructure projects, particularly in the field of transport and communication, power resources and storage; ii) giving more attention to rural development and the advancement of rural areas. We are implementing a balanced growth policy and we hope to achieve, by the end of the second term, an even economic distribution of wealth for which all the resources of the country are fully mobilised. Dispersal of industries in this policy is a useful tool for attaining our goal. By 1983, the end of the term, we will have prepared the country's economy for the take-off stage.

With respect to foreign policy, I intend to maintain our firm position in the **non-aligned bloc**, and we will seek to further and promote friendly relations and cooperation with all countries, irrespective of ideology and social or political system. Regional cooperation will be enhanced on our part and most important will be the realisation of economic, social, and cultural integration according to agreements with neighbouring countries. Our role will remain active in both the Arab and the African worlds, and I would wish to see our coordination role between the Arab League and the OAU increased, especially vis-a-vis issues of common interest to both Africans and Arabs.

In the UN my country will continue to support world peace and prosperity and the consolidation of peaceful and friendly cooperation among all countries.

These are only some of my expectations in terms of what I would like to achieve during the new term of office, if I am given this honour by my people. □

Interview by R.D.B.

The Sudan : waiting for the economic miracle

The Sudan is a meeting-place of civilizations: the biggest country in Africa, it has basically Arab characteristics. The Arab world is showing a growing interest in Sudanese development and the Sudan is continually increasing triangular cooperation between the Africans, the Arab aid donors and the purveyors of Western technology.

The Sudan is sometimes said to represent Africa in miniature—it certainly has room to do so, covering more than 2.5 million sq. km. (as compared with 1.8 million sq. km. for the total area of the nine EEC countries).

The Nile, a vital artery

A country of such extent naturally covers a wide variety of geology and climate, extending from desert or semi-desert over a third of the northern part of the country, to equatorial jungle in the south.

The main natural feature of this immense area is the river Nile, which crosses the country from south to north; its two main branches, the Blue Nile and the White Nile, come together majestically in Khartoum, the capital. Around this confluence, the "heart of the country" has been formed, i.e. a conglomeration of three cities, Omdurman, North Khartoum and Khartoum itself, of which the overall population exceeds 800 000. With a population of some 17 million and an approximate annual growth rate of 2.5 %, the Sudan has a mean density of 7 inhabitants per sq. km., one of the lowest in the world. It should, however, be noted that the population is mainly concentrated in the area immediately to the south of the capital.

A difficult unification process

Having been an Anglo-Egyptian "con-
dominium" since 1899, the Sudan be-

came independent on 1 January 1956. A civil war between the northern and southern provinces ended in 1972 through an agreement signed in Addis Ababa, giving the southern provinces a semi-autonomous regime. It was a significant milestone in the newly-acquired independence of the state. Both President Gaafar Numeiri and Vice-President Abel Alier, who presides over the executive High Council and the cabinet of the regional ministers of South Sudan, stressed its importance during the Unity Day celebrations in Juba, capital of the southern region, on 3 March. During these celebrations, five years after the Addis Ababa pact, both men spoke of the considerable efforts which have been made since then for the integration of South Sudan and the balanced development of all areas of the country.

These five years of peace have enabled the country to develop progressively and to prepare to make an "economic jump forward" in the next six years through the 1977/78-1982/3 economic and social development plan.

This national development plan, presented in the form of a project by President Numeiri at the second national congress of the Sudanese Socialist Union at the end of January 1977, foresees an overall growth in GNP of 7.5 %, based on agricultural development. This figure takes 1976/77 as a reference and comes under a long-term plan (1977/78 to 1994/95) aiming at an overall growth in GNP of 8.5 %.

To reach this target, the Sudan plans to invest 2 670 million Sudanese Pounds(1) in the next six years, £ 1 570 million in the public sector and £ 1 100 million in the mixed and private sectors. In the public sector, 47 % of the total will be drawn from national resources, the remainder being made up from foreign resources. For the whole plan, this ratio is of 48 %/52 %. A sec-

toral breakdown of the public investments clearly indicates the priorities and the objectives which the Sudanese government proposes to reach through this plan: 32 % will go into agricultural development, in which an annual growth rate of 5.5 % should be reached; 25 % into industry, mines and power, with an annual growth rate of 9.5 %; 24 % into transport and communications, with an annual growth rate of 7.5 %; and 19 % into services, also with an annual growth rate of 7.5 %. These three main sectors are closely related to agriculture, which provides most of the raw materials for industry. The latter two sectors will not really develop until some major constraints, due to transport and communications problems, are overcome.

Agriculture and Arab interests

Agriculture is the Sudan's basic way of life; it produces some 40 % of GNP, employs more than 85 % of the population and brings in over 90 % of total export returns. The modernization and increased profitability of traditional farming and the development of the modern sector, with agro-industries processing local raw materials and producing agricultural inputs, constitute the primary objectives in this sector.

Irrigation will play a significant part in Sudanese agricultural development and the importance of the Nile waters, on the use of which an agreement was signed in 1959 with Egypt, must again be stressed here. One of the most ambitious projects in this field is the digging of the Jonglei Canal (300 kilometres long and with a daily capacity of 20 million cubic metres) in the Sudd, the swampy area of South Sudan. This could help channel a lot of water into irrigation and improve the White Nile for agriculture and river transport. Cooperation on this with Egypt is excellent; the Egyptians are providing half the finance and count on being able to use the Jonglei Canal themselves.

The possibilities for agricultural devel-

(1) 1 SE=approx. 2.6 EUA.

opment seem immense and for some time the Sudan has been called "the granary" of the Arab world. This agricultural potential and the development prospects are covered in this issue in an interview with the agriculture minister, Mr Abdalla Ahmed Abdalla (page 22).

The Arab world has become increasingly aware of the need to ensure food supplies. In view of its potential and its geographical proximity, the Sudan, which itself belongs to the Arab League, is a privileged recipient of both bilateral and multilateral Arab investments. The progress which will be that of the production of foodstuffs, including stock-breeding, within the years to come, both to reach a point of self-sufficiency and also for the export of the surplus, will therefore be largely dependent on Arab investments. Nevertheless, one must mention here a form of "brain drain" which is apparent at all levels of Sudanese workers, drawn by petro-dollars to go and work in the neighbouring Arab countries.

Communications

The sheer size of the country is not always an advantage. Transport and the means of communication on which most sectors depend are made more difficult. In a wider perspective, this sector is also very important in regard to the socio-political unity of the Sudan, as was confirmed by Dr Ahmed Abd El Karim Bedri, transport and communications minister, and this has not been given adequate attention in the past. By way of example, up till the end of 1970 the country had only 300 kilometres of tarred roads.

The connections between the centre of the country, i.e. Khartoum, and the most densely inhabited productive area to the south of the capital and Port Sudan, are of the utmost importance, both for getting the main exports out and for bringing in supplies, in particular oil. Apart from the efforts made by the government to connect all the major centres of the country by an efficient transport network by 1983, priority has naturally been given to improving all the means of transport connecting Khartoum to Port Sudan. The doubling of the railway track between these two towns, the construction of a tarred road (1 190 kilometres



Coffee production is being revived

due to be completed by 1978), the forthcoming opening of a pipeline (810 kilometres long) and the extension of the international airports of these two centres—as well as the Juba aerodrome—will all connect the main areas of production to the main port of evacuation.

The Sudan will also improve connections with some neighbouring countries, in particular Egypt, Uganda and Kenya, by the extension of existing roads and the construction of new ones.

Great expectations

The Sudanese are aware of holding a good hand of cards and they mean to play them well. This new awareness of and hope for a prosperous future can be felt at all levels. The increasing presence in the country of businessmen from Europe, Japan, and the Arab countries shows that this feeling is also shared abroad, and the government has made a series of legal arrangements with a view to creating a climate favourable to foreign economic operators.

The application of the development plan will not be without difficulties. The danger of "overheating" of the Sudanese economy is not to be neglected and the question of a balanced absorption and distribution of Arab, European and other foreign assistance will also

have to be solved. Moreover, the objective of growth based on agriculture will demand a close coordination between all the sectors of the economy by virtue of their interdependence. The development institutions and organizations will need flexibility to cope with the changing conditions of the world market. The Sudan is the second biggest producer of cotton in Africa and 65-70% of its export returns come from cotton. Following the cotton crops in 1974/75, when world prices were at their highest, the Sudan missed the boat by building up stocks before the prices fell again. So the marketing of agricultural produce must be carefully organized. Located near both African and Arab markets with a future, the Sudan has all the necessary trumps to become a major exporter of agricultural produce, but this will take time.

Although the means for financing its development action will not be lacking, one of the major problems could remain that of lack of labour, in particular qualified labour on account of the "brain drain" towards the Arab world.

However, the Sudanese authorities are well aware of all these problems and their determination to overcome them appears to justify their optimism from an economic point of view. In the next few years they reckon to be able to say the Sudan is "where the action is". □

R.D.B.

The rural potential of the Sudan

Food production could rise dramatically, says farm minister Ahmed Abdalla

"The Sudan has got a tremendous potential in the rural and in other areas. There are approximately 10 million feddans (1) under traditional agriculture, mostly in the west and in the south, but at present these areas are of low productivity and it is the intention of the government to raise the productivity of the traditional sector through the implementation of the six year plan. There is also the intention, of course, of reducing disparities in inter-regional income and investment. At present, the western and southern Sudan are the priority areas, in other words the savannah region where the pastoralists live, and the objective is to raise their level and improve their living standards. Many integrated rural development projects are already going on and there are certain feasibility, investment and developmental studies going on as well. So probably that is where the first priority lies".

► *The Sudan has been described as the potential granary of Africa; how realistic is the description?*

— I think it is very realistic, because if you just examine the potential you will find that we have about 60 million hectares of pasture land, 30 million hectares suitable for forestry and I think about 35 million hectares of arable land which can be cultivated immediately, given the investment and technical know-how. I think the description is true, and this has been realised by the Arab states to

(1) One feddan equals approximately one acre or 0.4 hectare.

Dr Abdalla Ahmed Abdalla, Minister of Agriculture, Food and Natural Resources

judge from the great interest they are showing in developing the food potential of the Sudan. We could cater for the needs of the Arab and African region and even provide surplus for world use.

► *Could you describe the role of the Arab Authority for Development and Agricultural Investment?*

— I think the basic role of the Arab Authority lies in providing external funds for the implementation of the six year plan. Several Arab nations have realised the potential in the Sudan, and the feasibility of investing in food production. The provision by the Arabs of those funds will facilitate the transfer of technology in this field and the improvement of our management capacity by further training.



Food self-sufficiency and agro-industries

► *President Numeiri once said it was a "national disgrace" that food took up a quarter of the Sudan's imports. When and how do you think your country will be self-sufficient?*

— It is one of the basic targets of the six year plan to reach food self-sufficiency and we consider this as very strategic and very important. This goal is going to be achieved both by vertical expansion and horizontal expansion. Vertical expansion involves augmenting existing schemes and introducing animals into the rotation of crops, rational use of inputs, raising the level of farming and also raising the level of the farmer himself. Horizontal expansion involves mechanised arable farming and improvements in the traditional sector, putting more land under crops and making more rational use of the south and other areas. The food import pattern of the Sudan is the result of a historical situation whereby research into food crops was neglected. Research in the past, as a colonial policy, was restricted to cash crops like cotton. In the last 10 years a lot of effort has gone into research on food crops and production with a view to achieving self-sufficiency and production of surpluses for agro-industries and exports.

► *The Sudan is also preparing important projects in the field of agro-industries.*

— As part of the six year plan, much emphasis is going to be put on agro-industries, and the Arab world is also very interested in this. It is a vital role for the agricultural sector to provide the raw materials for our industry which is presently almost entirely based on agriculture. Industry itself will have to provide more fertilisers and farming machinery. So both sectors will be very much dependent on each other.

An ambitious farm plan

In the six year development plan a number of ambitious targets for in-

creases in rural production, and the raising of the level of life of the farmer, have been set out. The basic targets for horizontal expansion are: more areas under crops; modernization of the traditional rural sector; mechanization of arable farming and improvement in essential infrastructure. These targets for horizontal expansion, involving an increase in the productive area—which presently represents only 9–10% of the total arable land—have been quantified and speak for themselves: by the end of the six year plan, increases should be 12% for millet, 19% for cotton, 43% for wheat, 50% for maize, 53% for beans, 54% for cassava, 58% for groundnuts, 66% for sorghum and no less than 400% for rice.

The vertical expansion, this is the improvement of existing schemes, is based on the rational use of irrigated areas for

crops with high income value; the electrification of pumps on both Niles; the introduction of animals in crop production; the rational use of inputs such as fertilisers and machinery; the increase of the level of efficiency of supervision and research, and the improvement of marketing.

Livestock has "tremendous potential", according to Mr Abdalla, and the output of this sector will be greatly increased. The farm minister commented: The figures amount to more than 40 million cattle, sheep, goats and camels together. Very little has been put into the improvement of livestock production in the past and therefore growth has been very slow, but the six year plan puts great emphasis on the improvement of livestock production in the Sudan. This is going to be done by increasing the research capacity and by increasing the

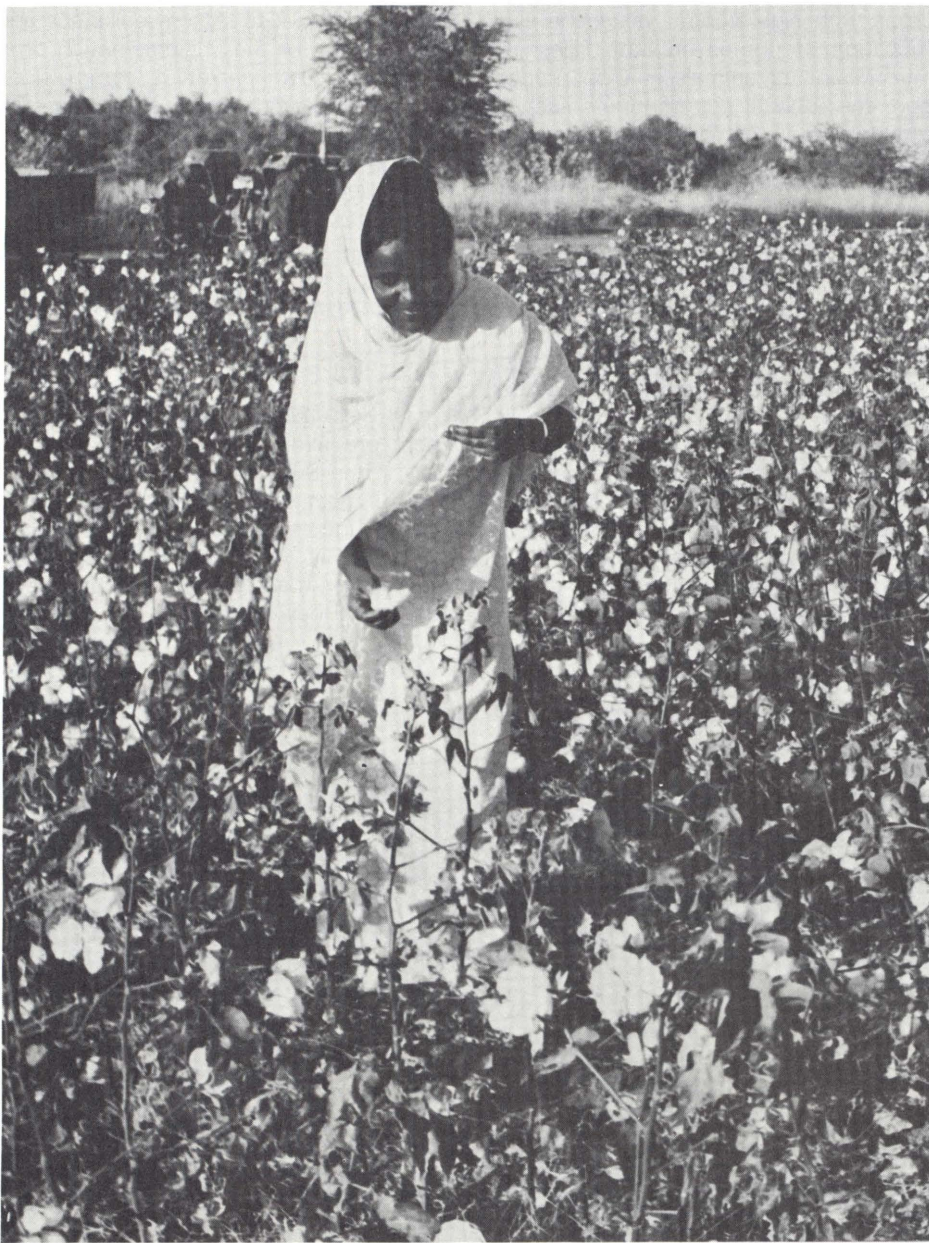
veterinary services. At present steps are being taken for the implementation of a livestock meat marketing commission; there is also a public corporation for animal production. Wherever possible, both in irrigated and in rain-fed farming areas, livestock will be introduced into crop rotation.

► *Would the Sudan consider exporting meat to the Arab countries?*

— Oh yes, this is a strategic target and there are already many projects under way in the Sudan aiming at the production of meat for the Arab world. Many Arab countries are also interested in securing land in the Sudan for cattle, specifically for meat production to be exported to their areas.

Training farmers and mechanization to improve agricultural production





Cotton: Sudan's long-fibred variety is of high quality

► *How do you see the future of sugar production in the Sudan in the coming years with the large schemes that have been launched so far?*

— The Sudan is going to be a major sugar producer. At present we are importing quite a substantial amount, I think reaching 150 000 tonnes, and furthermore our own sugar consumption has increased by 68%. Total production in 1974/75 was about 160 000 tons, that is, about 50% of what we ought to be producing to meet our consumption. Our

sugar production growth rate has been 11.5% where our target was only 10%. The construction of five sugar factories is now under way, and when these are completed (one factory already is) in 1979 we will be able to export about 160 000 tonnes of sugar.

► *Cotton is still your main export, but are you going to diversify the production of cash crops?*

— Yes, but cotton will still remain a very important crop in the diversification plan.

► *The Sudan is also the world's largest single producer of gum arabic, but your production has seriously declined over recent years. What is this due to and how can it be put right?*

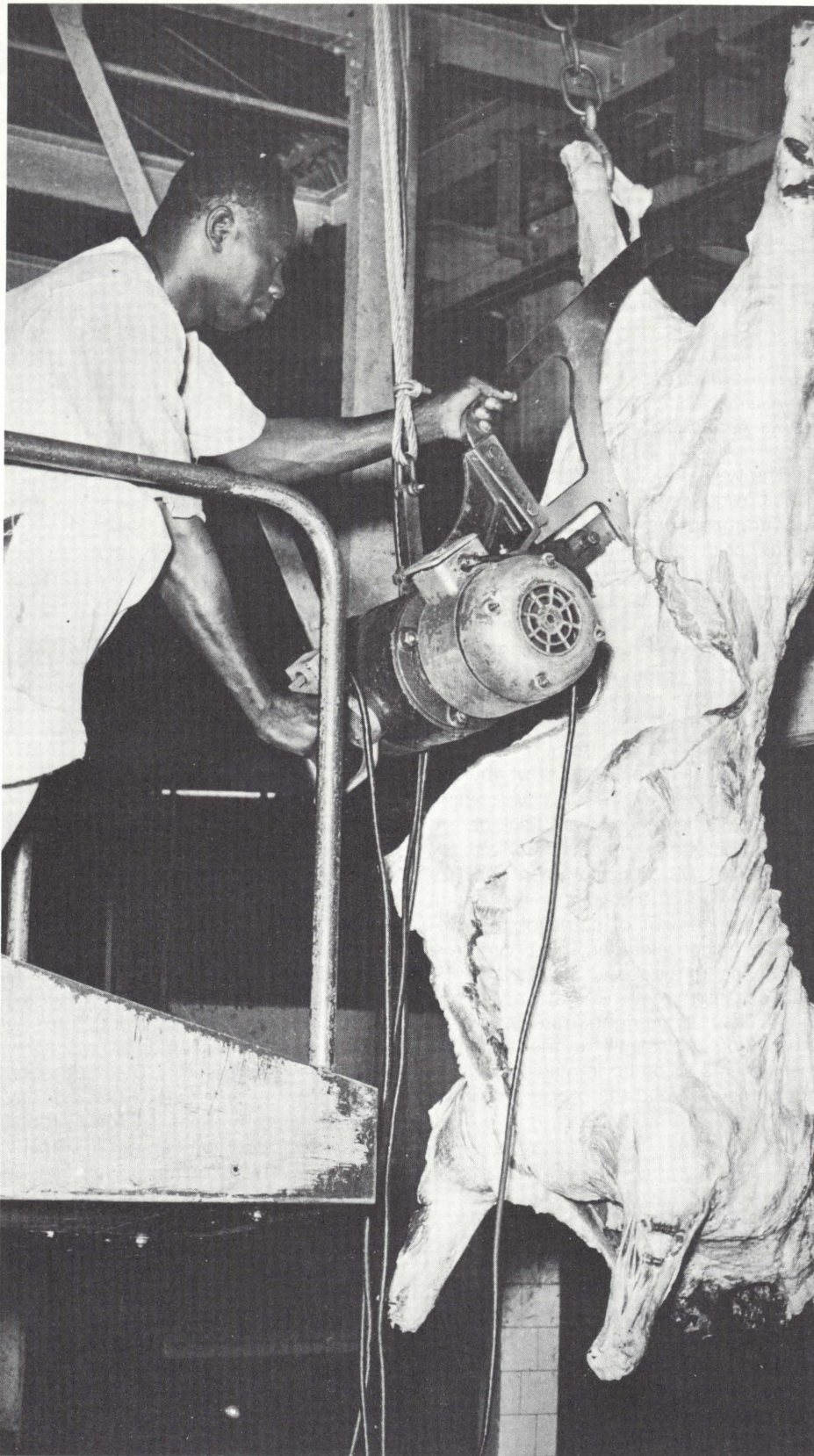
— It is true that we are the main producer of gum arabic, but recently production has been falling. The main reason is a lack of labour, or at least the relative cost of the labour engaged in tapping gum arabic has been too high, consequently the alternative use of labour elsewhere was more attractive. Another reason is the lack of domestic water supply in most of the areas where adequate production is available. The third reason is that we have experienced within the last six years, like all the Sahel countries, a serious drought and this has also had its effect on our production. The fourth reason is that the expansion of mechanised farming has taken place in certain areas where we used to have a great potential for gum arabic.

Now, to rectify the situation, we have firstly put water points in most of the production areas. Secondly, we have a very ambitious plan for reafforestation. Under this plan we will increase the area for gum arabic production by about 50 000 acres. Already more than 8 000 acres have been planted. As far as labour is concerned, through an improvement of prices paid to the producer we hope to increase the wages for labourers engaged in gum arabic tapping. Through these combined efforts we are hopeful that next year or the year after, our production will go up again. Equally, we are working on the market side: we are trying to reduce the sales price for the consumer in all parts of the world to compete with the alternative products.

Constraints to rural development and the role of the EEC

► *The rural sector is the basis of the Sudan's economy, providing about 40% of GDP and employment to about 80% of the population. What at present are the major constraints to its development and what solutions do you propose?*

— An immediate constraint is the level of the farmer himself; he is in most areas still a pastoralist. Communications



The Sudan could become a major beef exporter

are a considerable constraint. There is the water supply, which is being taken care of by the rural water development corporation. Management is also going to be one of the important factors to consider, but training could bring the necessary transfer of technology. The measures to overcome these constraints form part of an integrated rural development programme whereby all the factors that influence the life of the producer are taken into consideration, starting with health, education, social and economic factors and the use of technology to raise and improve the life of the rural population, especially in the Savannah region which includes most of our traditional sector. Another constraint is research and therefore we are going to place emphasis on adapted research.

▶ *This integrated regional approach will require a lot of coordination, both within the country, with the other ministries, and with all the major donors outside.*

— That's true. One of the ideas I am promoting is to create a development authority which will be responsible for the administration, both technical and otherwise, of each of these regional projects.

▶ *How will the rural development projects as proposed in the EEC indicative aid programme fit in with your national priorities for the rural sector?*

— They fit in quite well. We are looking seriously at present at an area in the savannah region where a lot of development and feasibility studies are going on. The activities of the EEC in that area will easily fit in with the overall development plan. The target there is to raise the productivity of the farmer, to increase his marketing facilities and to influence farm prices. This corresponds with our endeavour to raise the level of the farmer, to improve his life in that area by rational land use, the transfer of technology and training. We have a great interest in these projects, being an essential part of our six year plan, and we give them high priority. Moreover some of these projects play an essential role in our drive for food self-sufficiency and the substitution of expensive imports, particularly coffee, tea and rice. □

Interview by R.D.B.

KENYA

Pushing ahead with "the right strategy"

Mwai Kibaki, Minister for Finance and Economic Planning, is head of a key department in the Kenyan government where development policy is planned and coordinated. In the following interview he gives an outline of this policy and considers some aspects of Kenya-EEC relations.

▶ *Mr Kibaki, what is the present state of implementation of the Kenyan 1974/78 development plan and what is the role of the 1977/81 action programme that has been launched recently?*

— We have had problems since 1973, primarily because of the inflation in the world and the problems of the deteriorating terms of trade and we have therefore had to delay the implementation of some of our projects. We also have had to borrow rather more heavily than we thought we might have to. We have by and large kept to the targets set in the development plan which was published in the beginning of 1973, except that in the field of industrial investment the rate of investment is lower. In the field of agricultural development we are well above the targets we set ourselves and we believe therefore that, given good weather and favourable marketing of our main exports, we may still be able to reach the targets we have set ourselves by the time the plan is finished in 1978. The guidelines which were set later on were merely to make sure that we don't enter commitments that may be inconsistent with the strategy of our plan. That basic strategy remains the same, namely rural development and industrialisation using raw materials available in Kenya.

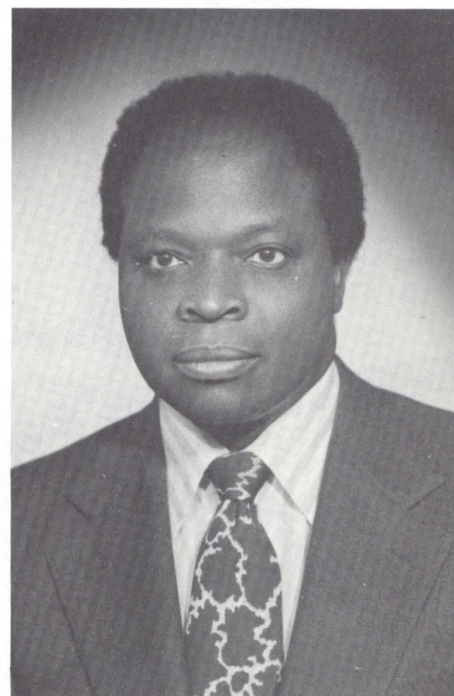
▶ *How much has Kenya suffered from the recent world economic crisis and what are its remedies for recovery?*

— The way you can look at it is that the deficit in our financing just widened in a very dramatic way, because with the rise in the price of capital goods that we have to import into Kenya, we've been paying in the last two or three years 30-40% more than we would otherwise have been paying for those imports. For the import of crude oil, we are now paying very close to four times what we used to pay in 1973. Therefore, the earnings that we get from our exports just cannot finance the level of the imports we have set in our development plan. So we have had to cut back on imports, sometimes imports which are needed, but we cannot afford to pay for all of them. And that in turn has meant the postponement of some of the projects in our development plan. We have not changed the basic strategy of the plan because we think that despite the difficulties it is the right strategy. But the most worrying of all is the fact that there seems to be no immediate sign of our getting beyond the problem of inflation.

Some of Kenya's main development assets

▶ *"Kenya's greatest asset is land", President Kenyatta has said. Various resettlement schemes have been carried out. How will the Kenyan government assure the further equitable distribution of land?*

— Well, the resettlement programme is a consequence of the fact that Kenya



Mwai Kibaki

was settled by a foreign people during the colonial period. At the time of independence it was agreed that that land would be redistributed to the citizens of Kenya. So that problem has existed for 14 years now, but the solution is very nearly completed. What land remains in the hands of foreigners will be resettled in the next two or three years. The land in the settlement schemes is reasonably equitably distributed. The question which now arises is the land which may still be owned by tribes, by tribal groups or clans and how we can get it properly distributed. This is being tackled first by encouraging proper demarcation, to enable us to adjudicate on who owns what land, because we want to do it peacefully and with the acceptance of the population. The other way of doing it would be merely to nationalise and distribute it by government action. But in Kenya this would have led to civil strife, because, due to the foreign settlement in Kenya, land has been the most important item of our political struggle. It would have been very wrong politically to have created a row over land so soon

after independence. So the way we are going about it now is to take longer than is really desired, to ensure that it is done peacefully, that it leads to more production and above all so that it avoids too much social friction.

► *Kenya's economy is reasonably diversified. Has this been a deliberate policy and if so, how might it develop in the future?*

— In a way it is the extension of the stage of development that we found at independence, because there were already some industries and there was an already quite diversified agricultural sector. Since independence we've thought that the best policy is in fact to diversify further so that we are not dependent on one type of export.

But I think the fundamental reason for the diversification is that the country itself climatically—the soils, the rainfall—is so diversified and has a tropical climate on the coast and temperate zones in the highlands and around the lakes. To make the best use of the land, in fact, you need to have diversified production.

► *One of Kenya's other major natural assets is wildlife, which is the basis of an already well-developed tourist sector. What expansion is planned for tourism and how will you balance the advantages against the possible disadvantages?*

— Tourism has now been accepted in this country as an important industry. It has made a reasonable contribution to our foreign exchange earnings. The problem of tourism isn't really as big as it has been made out, because all of it has been developed in a planned manner. There are many other sectors of our economy which have problems of coordination, but tourism in Kenya has developed in a coordinated, organised manner from the beginning, because the programme of conservation of wildlife and vegetation in fact started before tourism. To some extent we gained time, so that, for instance, basic decisions about lodges, demarcation of game parks, conservation of wildlife and who would be

able to run game lodges or own them, were all made before tourism became a profitable sector. On the social side there is now quite a definite opinion that tourism ought to be growing much more slowly, to ensure that the effect on the social life of Kenyans isn't too distracting.

So we will go slow now with the building of new tourist facilities, and above all consider the kind of activities by tourists that would be permitted and where they could be practised. There is a new look at the advantages of tourism and how it might be better controlled, in terms of utilisation of the coastal belt, of the mountain lodges or game park lodges and the kind of activities that are suitable there. For instance, there are many Kenyans who are convinced we mustn't develop gambling, it just isn't healthy they say. Many others, for instance, want conservation of the coast, and beaches and more control over the way hotels are built and where they are sited. I think tourism will continue to grow, but more slowly and in a steadier way. There was a rush in the last five or six years when it was so profitable that investment just poured in.

Kenya's pace of industrialisation

► *Kenya's economy has also developed with official and private aid in both the public and private sectors. What is the present climate for foreign investors in Kenya?*

— I think it is good, because we've not changed our policy; we continue to believe that private investment has a very major role to play in the development process, alongside public investment. We believe that the two are not contradictory and that in fact joint ventures between government and private investors can be quite profitable and we will continue to encourage them. So we believe there is a big role for foreign investment. There has been no change in the legal or social context within which it operates.

But there are some problems in relation to marketing of what is produced in Kenya within the East African region, communications problems, some political difficulties; but these are matters which every nation has to face once in a while, and we hope to get over them

Kenya has been given the go-ahead to export beef to the EEC



KENYA

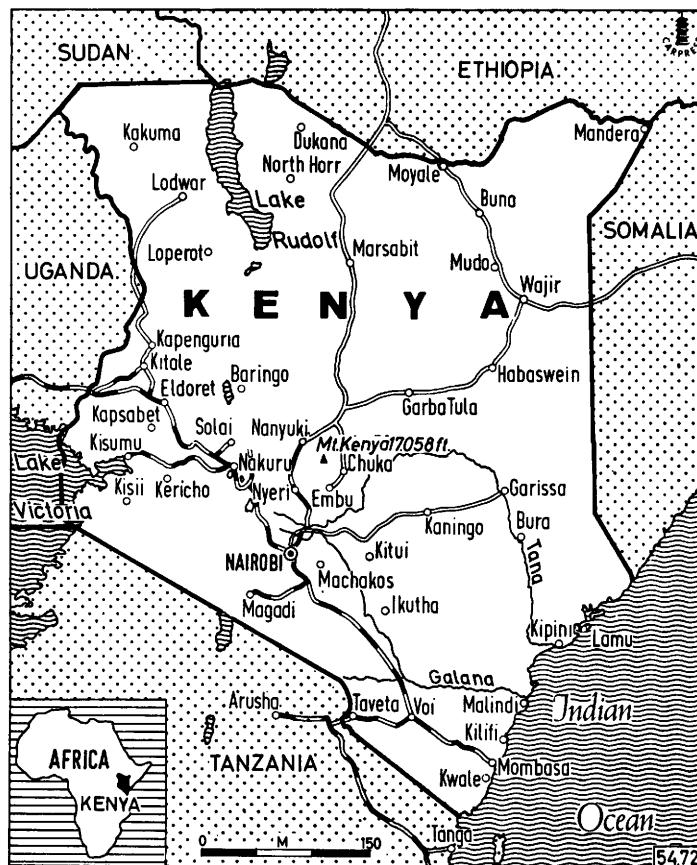
- Area: 582 646 sq. km.
- Population: 13 847 million (mid-1976); growth rate 3.34 % for 1975/76.
- Capital: Nairobi (pop. 850 000).
- Main products and activities: maize, sugar-cane, cotton, wheat, pyrethrum, coffee, tea, sisal, meat, cut flowers, tourism.
- Principal exports (1975 estimates): coffee (20.8 %), petroleum products (18.7 %), tea (13.6 %), pyrethrum, sisal, hides and skins.
- Currency: the Kenyan Shilling (1 EUA—about 9.4 KS).

The economy, 1976 / 1977

The Kenya economy had a very good year in 1976, the recovery being almost as sudden as the setback caused by the oil price rise at the end of 1973. The rise in the price of coffee to record levels was undoubtedly the main factor but there were substantial contributions to the resumed growth of the economy from most sectors, with increases in the volume of output in agriculture (other than coffee) leading the way, followed by manufacturing and commerce, and with stimulation also from increases in investment and in earnings from tourism. The combined effect of all these favourable trends was substantial improvement, firstly in the balance of payments, which ended the year in overall surplus and thus produced an increase in Kenya's foreign exchange reserves, and secondly in the levels of employment and income per head.

The indications are that 1977 will be an even better year than 1976. Most of the increase in coffee prices during 1976 occurred after Kenya's 1975/76 coffee crop had already been sold; the continuation of super-high prices into March 1977 means that Kenya's average realisations for the 1976/77 season should be even higher than for 1975/76, especially as deliveries are usually highest in the first quarter. The resulting rise in the overall liquidity of the economy is already being reflected in increasing imports, and the authorities will need to exercise vigilance to ensure that import orders do not build up to a point beyond the likely level of coffee and other export receipts in 1977/78.

Kenya's renewed economic growth is not being achieved at the expense of the structural and income redistribution objectives of the government. Large farms and estates are continuing to become less important as many are handed over to cooperatives, and smallholder production of major crops like coffee, tea, and sugar is an increasing proportion



of total output. The numbers of small-holders involved in cash crop production have indeed been growing more rapidly than numbers in urban wage employment. Here, however, it should be noted that Kenya is not the sort of dual economy described in economic textbooks, as most families tend to have, so to speak, one foot in the farming areas and one in the towns.

Good progress towards the social objectives of Kenya's National Plan is also being made. Education receives a very high proportion (33 per cent) of the government's recurrent expenditure, and this has produced one of the best enrolment-population ratios (at all levels, primary, secondary, and tertiary) of any country in Africa south of the Sahara (including southern Africa). Health services are also more widely distributed than in many developing countries. About 40 per cent of the government's recurrent revenue derives from direct taxation, an exceptionally high proportion by normal standards in the Third World; income tax rates are steeply progressive, and the introduction of capital gains tax in 1975 has increased the redistributive character of Kenya's government revenue and expenditure. □

T. CURTIN

Economic counsellor,
EEC delegation to Kenya

since they are only temporary problems, limiting the flow of trade.

► *Kenya recently received the first EIB loan to an English-speaking ACP country and the first loan from the EIB's own resources under the Lomé Convention. How do you see the role of this particular banking institution under Lomé in Kenya?*

— We have had people from the EIB with us in Kenya. We have brought to their notice the sectors in which we would like to see their investments, essentially in the industrial sector, and they have in turn made their own comments. What we really hope is that they will effectively join with us on a continuing basis in the development of institutions in Kenya. We have an Industrial Development Bank of our own, we have an International Development Finance Company in which Kenya and three other nations are participants. And we hope that the EIB will become a major partner in our development process. We hope also that they will help us in promotional work, because as a nation we have found that even where we have decided what kind of investment we're looking for, we need institutions like the EIB to speak to investors and encourage them to come to Kenya. These investors bring in manpower as well as capital, and we hope the EIB will be a good bridge in that process.

► *What are the Kenyan authorities doing to promote local small and medium-sized enterprises?*

— There are two programmes: one is a scheme for loans to small-scale industrial producers through our Industrial and Commercial Development Cooperation, but industrial estates have been more effective where the government provides a kind of extension service, in terms of advice and in terms of capital to small industrial producers. The industrial estates in our main towns, Nairobi, Mombasa, Kisumu, Eldoret and Nakuru have been a really fantastic success. I'm very, very pleased with it. We are also planning 20 rural industrial development estates. We have had very good support from countries such as Germany, Sweden and the Netherlands. And I think we will succeed. What we are trying to do is build industrial estates in towns in rural areas.

The EEC approach to Kenya's development

► *Apart from industrial cooperation, what are the other aspects of the Lomé Convention that are of particular interest to Kenya and how far has Kenya taken advantage of them?*

— The main aspect of course is the EDF. As you know, we were amongst the first countries to propose projects and we were very grateful that the EDF responded quickly. They sent people out here and together we have identified the projects where investment will go and we have started work on these projects. So we hope to use the arrangements very effectively. There is, of course, the problem of the stabilisation of our export earnings. We have not yet raised this question because in the last two years our main exports, coffee and tea, have been reasonably stable; sisal prices have come down a little, but it was not the occasion for us to use this particular scheme. Trade between our country and the EEC is growing very rapidly. In fact the EEC is now the most important source of our imports and remains the most important market for our exports. So the relationship in fact is quite close and, perhaps, to complete the picture, one should say that even in the field of bilateral aid the various members of the EEC are very important to us. Recently they've been improving the terms of bilateral aid.

► *Both the beef and veal arrangements and the horticulture arrangements affect Kenya. What is your view on recent decisions in these sectors?*

— We've been trying to export beef to Europe, primarily as question of principle because there were people saying we do not produce the quality that they want. However, the technicians such as veterinarians who checked our processing and controls, particularly our disease controls, were all quite satisfied that we have arrangements as good as any in those countries which traditionally sell to Europe. We are able to sell in Europe, but at present there is no problem of surplus beef because the consumption in Kenya has grown much faster than we

had thought. With high incomes, people are spending much more on beef. I do hope no new difficulties will arise, and above all that Europe can evolve a system where it doesn't have to subsidise local production to such a heavy extent that they deny the European consumer the advantages of the better quality and cheaper meat we produce here.

For cut flowers the decision to allow imports is very welcome, but what is uncertain is that it is open to review again. We hope that a final decision can be taken so that we can go on selling our flowers because this is a labour-intensive system of production. It is very profitable for the present producers and above all it is just one aspect of a major programme to develop horticulture as an important industry in Kenya.

► *Finally, Kenya's indicative EEC aid programme, the first of all the ACP states' to have been drawn up, shows a concentration on a limited number of major rural development projects. What will these projects represent for Kenya and how do they fit in with your national priorities?*

— The priority in Kenya is to develop the rural areas, because that is where 80% of the people still live. Over the last 15 years we have achieved very substantial development in those parts of Kenya with good soil and good rainfall, the so-called high-potential areas. Now we have to concentrate on what is called marginal land, areas in which you don't get good rainfall and in which the soil has not the same kind of fertility. The fact that the EEC has joined us in that phase of development fits perfectly with our strategy of development. We hope the Community will remain with us and continue to make a real contribution to the problem of utilising marginal land.

In fact we are very grateful that the EEC started the right way by first discussing the basic development strategy with the government of Kenya, and then seeking projects which fit into that strategy. I thought this was a very healthy attitude. □

Interview by R.D.B.

“An outward-looking country” on the international stage

Talking to Kenya’s “Mr Lomé”

Dr Julius Kiano, Minister for Water Development, led the Kenyan team at the Lomé Convention negotiations. He has a broad outlook on major world events, especially those concerning relations between developing and industrialised countries. (Dr Kiano also describes water development in Kenya in this issue’s Dossier).

► *Dr Kiano, since you negotiated and signed the Lomé Convention on behalf of the Kenyan government, you have sometimes been called “Mr Lomé”. Do you like the nickname?*

— It is very flattering to me that my colleagues, in particular those I negotiated with in Brussels, jokingly refer to me as “Mr Lomé”. The achievements of the African, Caribbean and Pacific group represented a break-through in economic relations between developing and developed countries. It’s a break-through because in addition to freer access to the EEC market for the products of the ACP countries, the stabilization of the export earnings from primary products was also agreed by both parties. This has been the main complaint of developing countries, that the products which they market in the industrialized countries suffer from very serious price fluctuations, and because of such fluctuations it is very difficult for the developing countries to forecast what their earnings will be in years to come. It is from export earnings that we accumulate our development finance. When the EEC accepted the approach of the ACP countries

that there should be a special fund to assist in the stabilization of our primary products, particularly agricultural products, I felt that we had made a major achievement. It has been my hope since that day that in the dialogue between the developing and the developed countries this break-through, this concept of assisting the developing countries to stabilise their export earnings, will be accepted and that is why many people think of me as being very loyal to the Lomé Convention.

► *What is your present view on how Kenya-EEC relations have evolved since Lomé was signed?*

— We are very happy indeed. Even before the Lomé Convention, Kenya, together with Uganda and Tanzania, had an association arrangement with the EEC, but that arrangement was not as far-reaching as the Lomé Convention because we had not yet received the free access which we achieved in the Convention. When that was achieved we were able to increase our exports to the EEC and that has been a very great help to us. But in addition to that some money was set aside for grants or soft loans, both by the European Development Fund and the European Investment Bank, and from those sources our government has drawn a considerable amount. So we have had very positive results from the Lomé Convention.

► *Could you summarise what instruments of this Convention are particularly of interest to Kenya?*

— Well, the first one is free access of identified agricultural products to the European market. That is the ability to sell without charging duties which means that the price is a bit lower and therefore the customer in Europe can buy more. That aspect was of great importance to us. The second one, as I said, is the stabilization fund for specified agricultural products. We know that was not an easy arrangement considering the agricultural policy of the EEC but they made a considerable sacrifice, particularly over meat and so on, which is also produced in Europe. The farmer in Europe has to be protected, but at the same time the farmer in the developing countries has to be assisted and we thought there was a magnanimity on the part of the EEC to do so.

The third major aspect was the discussion on exporting to Europe manufactured goods from the developing countries. We made the EEC understand that although we are mainly exporters and producers of primary products, both minerals, raw materials and agricultural products, nevertheless we are bent on industrialization. And it was very gratifying that the EEC agreed to assist us in our industrialization policies and even give us access to their markets for our manufactured products. So that was also a great achievement on our part; and of course the fourth one is the special fund which would be used for loans and grants.

Kenya’s inter-African relations

► *You have attached much importance to trade between Kenya and the EEC, but since its independence Kenya has succeeded in diversifying its trade by offering new products on new markets. How has this been achieved?*

— Since independence, the first exercise has been to africanize agriculture. That is



Dr Kiano signs the Lomé Convention for Kenya (Togo, 1975)

"We have had very positive results from the Lomé Convention"

not so much diversifying the production, but rather having the Africans take over the responsibility of managing the agricultural production of the country. This has been so well achieved that our agricultural production continued to increase after africanization, which was not expected. People felt that once the Kenyan government bought out the Europeans, production would go down. But we were able to become exporters of agricultural products, which was not a major item in the pre-independence period. Furthermore, we have become industrialized to some extent and believe it or not, our shoe manufacturers have penetrated European markets and have actually sold shoes to Italy! That is quite an achievement because Italians are very good at making shoes; but there is a particular kind of shoe they don't make and we were able to sell them to Italy because of the Lomé Convention.

As the cost of industrial production in Europe is going up, there are some kinds of industries which could be set up in Kenya to produce the items which are being produced in Europe. In other

words, they can bring their technicians here, they can bring their their machinery here, and produce the items here like clothes, children's and women's dresses, for the assured markets in Europe. There is a need for more technological cooperation between the EEC and the developing countries and in particular Kenya.

► *Has there been a special effort by the Kenyan government to develop African markets?*

— Very much so. We feel that we should not all the time look to the industrialized countries to be our markets, we should also look to fellow African and Asian countries to purchase from us. For that reason Kenya has been quite aggressive in looking—in addition to Tanzania and Uganda—for markets in Zambia, for example, in Rwanda, Burundi, Zaire, Ethiopia, and in southern Sudan. And to make this possible a road between Addis Ababa and Nairobi has now been constructed so that we can send things by road. The Sudanese and Kenyan gov-

ernments have also agreed to embark on a road connecting the southern Sudan with Kenya. Previously we reached the Sudan through Uganda but now there will be a road to the west of Lake Turkhana. Additionally the Kenyan government has also started to explore market possibilities in West Africa. Already we are selling meat to Liberia and I think also to Nigeria—communication is not very good, so it goes by freight. Thank God, we have Panam flying from Nairobi to West Africa which allows us to sell our agricultural products in West Africa.

► *What is your opinion on the future of the East African Community, in view of the serious difficulties it presently faces, and how do you see regional cooperation in eastern Africa as a whole?*

— It is rather tragic and unfortunate that there has been misunderstanding between the partner states of the East African Community. This was mainly due to the fact that being at three different levels of industrial development the other countries felt that Kenya was getting the better of the arrangements without adequate compensation on their part. I personally think it is a tragedy that this experiment, that was very successful before, should be appearing to die at a time when many African countries, including Kenya, are fighting for more and more inter-African economic relationships. I think the history of it may be one of the causes.

We inherited it from the pre-independence period and just reshaped it a little here and there. Perhaps also we took too much on, because we had a customs union, a common market, the common services and institutions, and all this just when the three countries were reaching independence. Those countries that are going through this exercise step by step stand a much better chance of success. If, for example, a misunderstanding arises, say on the railway services, that misunderstanding spreads to aviation, and to the postal services and telecommunications and then it spreads to the whole common market idea. So this is where perhaps the Treaty took on too much together; a fault in one area affected the others. There was also the matter of national sovereignty. For example, when we became independent

we all had one common currency, but then it was decided, first by Tanzania, that there should be separate currencies. This meant three different central banks, three different fiscal policies, which also meant three different approaches to industrial development. I think that was one of the first problems. But I do hope that when the mess of the community is resolved one way or the other, fresh talks will start on all those things where we can work together.

Playing a positive role in the international community

► *From these relations between developing countries, can we turn to the overall relations between developing and industrialized countries—what is your opinion on*

this, especially in the light of the general debate on the new international economic order and the North-South dialogue?

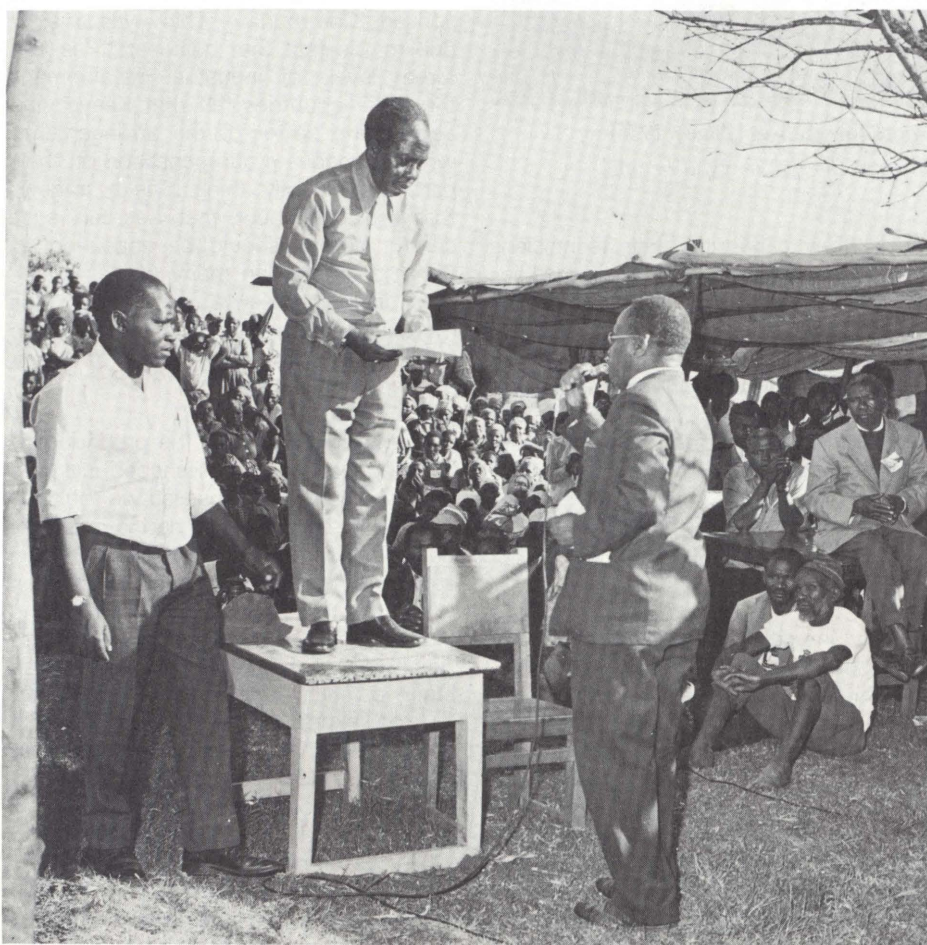
— Quite frankly, I think sometimes the industrialized nations misunderstand our position. One cannot be blind to the fact that industrialized nations have made contributions, financial, technical and in personnel, to the industrialization of our countries. But we all aim at being self-sufficient at an early stage. The sooner we can dispense with aid and be able to earn adequate development finance from trade, the happier we will be. And that is why at the UNCTAD conferences and in other dialogues a lot of emphasis has been put on proper remunerative arrangements for export items from developing countries to enable them to earn their development finance. Aid, when it comes, has its own costs, particularly interest rates. Interest rates have accumulated considerably and the burden of

debt is restraining the speed of our development. That is why we felt that we should have a mechanism, such as the one we have in the Lomé Convention for the stabilization of export products, through the creation of a common fund under UNCTAD which would have available sufficient money to compensate a country if its earnings go below an agreed index, or even when too much has been produced. This fund could pay for the surplus stock and hold it until the market readjusts; this in itself would be a major step towards the self-sufficiency of the developing countries.

But this approach is not fully understood; it is as if we were asking for more and more sacrifices on the part of the developed countries, whereas we are looking for mechanisms to enable us to be self-sufficient and less dependent on aid. It is also true that the rise in the cost of oil and energy as a whole has hit the developing countries disproportionately compared with the way the industrialized nations have suffered. The industrialized nations have a habit of just passing over to the customer the additional cost of production arising from the higher cost of energy. So, on the one hand, we have to pay higher prices for the oil we need, and on the other hand we have to pay higher prices for the industrial goods we have to buy. A new arrangement must be made whereby the prices paid for our agricultural products are at a high remunerative level. As the matter stands today, the industrialized nations dictate the price at which we buy their industrial products, and because they are also the main market for our products they also dictate the price at which they will buy our primary products. We think that is wrong.

► *In the last Jamhuri statement, President Kenyatta referred to the effects oil price increases have on developing countries. Kenya so far has shown a keen interest in Afro-Arab cooperation. How would you like to see this relationship evolve?*

— We sent an important delegation to the Afro-Arab conference in Cairo. Furthermore, we have made quite a number of visits to the Arab countries, including the assistant minister for co-



Dr Kiano at a ceremony where villagers have raised money for a project under the Kenyan "Harambee" system of collective do-it-yourself

THE CONVENTION AT WORK

Second meeting of the ACP-EEC Council of Ministers

The ACP-EEC Council of Ministers held its second meeting on 13 and 14 April 1977 in Suva, Fiji. The meeting was chaired by Ratu Sir Kamisese Mara, Prime Minister of Fiji. The EEC delegation was headed by the Rt. Hon. Edmund Dell, Secretary of State for Trade of the United Kingdom, President of the EEC Council, the EEC Commission being represented by Commissioner Claude Cheysson.

The meeting was noteworthy for its spirit of frank and constructive co-operation and for the fact that mutually acceptable solutions were found for the major outstanding problems, which assured the success of the meeting.

The Council of Ministers reviewed the various fields of application of the Lomé Convention since it came into force on 1 April 1976 and focused on items relating to the system for stabilizing export earnings, sugar, industrial, financial and technical cooperation, and customs co-operation, relations with the ACP-EEC Consultative Assembly and various other items.

Stabilization of export earnings

The Council took note of a report presented by Commissioner Cheysson and emphasized the satisfactory results obtained in the practical application of the system, in particular the adoption only a few months after the entry into

force on the Convention of the initial decisions on transfers covering the financial year 1975 and the second series of transfer decisions covering the financial year 1976 which the Commission was able to announce in Brussels, in the week before the Fiji Council meeting.

Concerning the requests submitted by the ACP States on stabilization of export earnings, the EEC was able to meet to a large extent the wishes of the ACP. This enabled the Council to add to the thirteen groups of products already covered by the Stabex system the following new products: vanilla, cloves, pyrethrum, wool, mohair, gum arabic and ilang-ilang.

The ACP-EEC Council of Ministers was able to extend to Western Samoa, Tonga, the Seychelles, the Comoros and Lesotho the derogation provided for in Article 17(4) of the Lomé Convention, which enables exports irrespective of destination (and not only exports to the Community) to be considered eligible for the Stabex system. This decision was taken in view of the special geographical and economic situations of these countries and the particular structure of their trade. The Council agreed that a similar decision will be taken for Cape Verde when that country's accession to the Convention becomes fully effective.

Furthermore, the Council has noted that where, in individual cases, exceptional events give rise to abnormal results in the application of the period of reference on which financial transfers are based, the Community will seek, with the ACP state concerned, a solution to these difficulties through as favourable as possible an interpretation of the existing provisions of the Convention.

In respect of the request by the ACP states that certain mineral products and rubber should be included in the Stabex

New man to head EEC development directorate

From 1 June 1977, Klaus Meyer will replace Hans-Broder Krohn as director-general of the EEC Commission's development directorate.

Dr Meyer is currently the Commission's deputy secretary-general. Dr Krohn will leave his job after seven years to become special adviser to development commissioner Claude Cheysson.

See next issue of the "Courier" for profiles of these two men.

system, the Council adopted a resolution providing for close consultation during future international negotiations seeking possible solutions to the problems involved in the supply and marketing of such commodities.

Sugar

Under this item the Council dealt with three different questions.

First of all the ACP states raised the question of the decision taken by the European Commission reducing the agreed export quantities of sugar for some ACP states who failed to provide their quotas in the 1975/76 delivery period. After the ACP emphasized the gravity of the effect of these decisions on the countries in question, and the Commission explained the basic reasons why these decisions had been taken, the EEC agreed to reinstate their original export entitlement. The Community indicated that it was taking this action as an autonomous political gesture which would not be retroactive and which would not call into question the validity of the Commission's original decision. The Community said that it took this step largely on the grounds that this

was the first year of application of the sugar protocol and in view of the possible difficulties which the ACP states might have had in applying these provisions. The Community asked that this particularly important concession should not constitute a precedent.

Insofar as the negotiations on the guaranteed prices of ACP sugar for the period 1977/78 are concerned, the Council noted that these prices should be agreed before May but that the Community had not at that stage been able to open the negotiations because it had not yet established its own prices. It was, however, announced that the negotiations would open in Brussels on 28 April 1977.

The third point raised was that of the wish of two ACP states (Zambia and Liberia) to accede to the sugar protocol. The Council took note of this wish and agreed that the cases should be examined.

Financial and technical cooperation

The ACP-EEC Council of Ministers broached a series of diverse subjects relating to financial and technical cooperation.

For the first time since the entry into force of the Lomé Convention, the Council received a report drawn up by the Commission and the European Investment Bank, as the bodies responsible for the management of this cooperation, on the management of financial and technical cooperation in 1976.

After reaffirming the essential part played by financial and technical cooperation in the Convention, the Council adopted a resolution giving guidelines for the management of this cooperation in the coming months.

When finalizing this resolution, the Council examined the problems which had come to light in the past few months. It was able to clarify certain points and, with regard to others, to decide on the arrangements for their subsequent examination.

The text of the Council resolution includes, in addition to guidelines for the management bodies, a recommendation for the setting up of an ACP-EEC sub-committee with the task of examining the special problems confronting the least developed, landlocked and island countries.

In other sectors of financial and technical cooperation the ACP-EEC Council of Ministers entrusted the ACP-EEC Committee of Ambassadors with the task of adopting the necessary decisions.

This relates in particular to the fiscal and customs arrangements applicable to EDF contracts and the arbitration rules governing any disputes between the undertakings responsible for the execution of EDF contracts and the authorities of the ACP states.

Additions to the list of least developed countries

The ACP-EEC Council of Ministers received requests from the ACP group that several states which had recently acceded to the Lomé Convention be included in the list of least developed countries given in Article 48 of the Lomé Convention.

At the end of its discussions the Council decided to add the Comoro State and the Republic of Seychelles to the list of countries in Article 48. It also adopted a declaration of intent to the effect that, when they definitively accede to the Lomé Convention, Sao Tomé and Príncipe and Cape Verde will also be included on that list.

The Council took note that studies were still under way within the Community regarding similar requests by Surinam and Papua New Guinea.

Trade cooperation

The Council of Ministers held detailed discussions on various problems concerning the application of the Convention in the field of trade cooperation.

The discussions centred first of all on the implementation of Articles 2, 7, 8 and 11 of the Lomé Convention: in this connection, the Community reminded the ACP states that both sides were under an obligation to give notice whenever they intended to adopt trade policy measures which could harm the Community's interests. For their part, the ACP countries requested, and the Community accepted, that consultations should begin with a view to granting more favourable treatment for tomatoes and melons from the ACP.

As regards rum and the difficulties the ACP countries were encountering in disposing of their product on the Community market, it was agreed that talks would continue to establish the reasons for these difficulties as well as possible solutions, and, at the appropriate time, to examine proposed new Community legislation.

The Community and the ACP also agreed to examine at an early date in Brussels the ACP's memorandum on the application of Protocol No 6 on bananas.

Suggestions were made by the ACP to help solve the problems they face as a result of the Community's standards on the maximum level of aflatoxin in animal feedstuffs. The Community agreed to study these suggestions jointly with the ACP.

A discussion took place regarding the effects on ACP exports of the generalized preferences granted by the Community to the developing countries as a whole. A joint working party was instructed to identify and assess these effects.

In the context of trade promotion, it was agreed that, in addition to trade events, Community aid would in future be extended to improving structures in external trade, the training of personnel and the marketing of products. The Council of Ministers exchanged views on a Commission proposal to set up a European Agency for Trade Cooperation with the developing countries and agreed that the functioning of any such institution would not be allowed to endanger ACP interests.

In conclusion, the Council instructed the Committee of Ambassadors to examine the ACP suggestions, which it received with interest, concerning the supply to the ACP countries of surplus agricultural products on favourable terms by the Community.

Customs cooperation

The Council took note of the report by the ACP-CEE Customs Cooperation Committee underlining the generally satisfactory state of the application of the provisions of Protocol No 1 on definition of origin and administrative cooperation. It agreed to derogations from the rules of origin for Malawian and Kenyan exports of artificial fishing flies. It was noted that requests for a derogation in respect of Mauritius would need further study by the Community.

Industrial cooperation

The Council noted with satisfaction the progress which has been made in this new feature of the Lomé Convention, particularly as regards the setting up of a Centre for Industrial Development, which began its work at the beginning of the year.

At the request of the ACP states the Council adopted two decisions increasing the number of seats on the Committee on Industrial Cooperation and the Advisory Council of the Centre for

Industrial Development. On the first of these bodies the ACP states will have 17 seats instead of 15 and on the second, 6 seats instead of 4, which will enable the ACP to have better representation for their regional groupings.

Furthermore, the President of the Council of Ministers, Ratu Sir Kamisese Mara, announced that he intended to examine a difficulty which had arisen between a Community country and an ACP state and to give the Council the results of his enquiries at a later date.

Annual report

In adopting the annual report provided for in Article 74(5) of the Convention, the Council agreed that it reflected the far-ranging implementation of the main provisions of the Lomé Convention. This report, accompanied by the above-mentioned resolution on financial and technical cooperation is to be forwarded to the Consultative Assembly as the Report on Activities required under Article 80(4) of the Convention.

Relations with the ACP-EEC Consultative Assembly

As far as other aspects of relations with the Consultative Assembly are concerned, the Council took note of the resolution of the Assembly of June 1976 and of the final declaration of the Joint Committee of December 1976. It was agreed, in addition, that the President of the ACP Council of Ministers and the President of the Council of the European Communities would attend the next meeting of the Consultative Assembly due to be held in Luxembourg in June 1977 when they give further information on the progress of the Convention, in the wake of the Fiji meeting of the Council of Ministers.

Other matters

Amongst the other matters examined at the meeting, the Council of Ministers considered a detailed declaration by the representative of Lesotho concerning the serious difficulties facing his country. Lesotho had already received emergency aid and food aid from the Community and could benefit from the new measures just agreed in relation to the stabilization of export earnings.

The Council also took note of an ACP statement concerning the situation of ACP nationals in some Community countries. It was suggested that this question might best be resolved by contacts between the countries concerned.

The ACP countries also raised the difficulties they were having in the examination and preparation of the dossiers on the application of the Lomé Convention, difficulties resulting particularly from the large number of ACP countries involved. The Council recognized the importance of this question for the good functioning of the Convention and the Commission declared itself ready to undertake, as soon as possible, measures to ensure that the ACP Secretary-General would have in future the experts he needed.

The ACP states put forward some suggestions concerning the possible establishment of a joint ACP-EEC Centre for Agricultural Cooperation. The ACP-EEC Committee of Ambassadors was asked to study the feasibility of such a Centre.

Next meeting of the Council of Ministers

On the suggestion of the EEC it was agreed that the next meeting should take place in Brussels on 13-14 March 1978.

In his concluding remarks the President of the Council of Ministers, Ratu Sir Kamisese Mara, said that he believed the flame of Lomé had been rekindled and that the Council meeting in Suva could be looked upon as a new start for the continued successful working of the Convention. The President of the Council of the European Communities expressed his satisfaction that the Council, which had come to Suva prepared to take decisions where possible, had done just that. □

COMMISSION

Cheysson in Lesotho and Botswana

In March the EEC's development commissioner Claude Cheysson visited Botswana and Lesotho for the first time since the two countries signed the Lomé Convention. In Lesotho Mr Cheysson spoke of the particular problem of the border closure with South Africa and made a general declaration on behalf of the European Commission of Europe's attitude to the racial question in southern Africa. In reply to a speech of welcome by the Lesotho Prime Minister, Dr Leabua Jonathan, who said that the clo-

sure of Lesotho's border was an attempt by South Africa "to coerce us into recognition of the bogus state of the Transkei", Mr Cheysson gave his support. "Sometimes," he said, "the war against you takes an insidious manner as was the case with the closing of the gates. Sometimes it takes a more violent form, and I would like to pay respect to the memories of those of your brothers who died in Soweto and other townships... We cannot accept racialism... in Europe we know where racialism leads. It lead to the worst war that humanity has ever known. Tens of millions of Europeans died in that war, and it all started with the denial of the fundamental rights of man." Later in a speech to the Lesotho national assembly Mr Cheysson said, "I should not be honest if I let the slightest doubt exist about our deep conviction that you, the front line states, your brothers in occupied countries or in countries ruled by a minority have entered a just fight for freedom..."

Claude Cheysson's press conference

Claude Cheysson gave an introductory speech and answered questions at a press conference in Brussels on 31 March, in which he covered three main topics—the satisfactory results of the first year of implementation of the Lomé Convention, the European role in southern Africa and the Commission's proposals for the reopening of the North-South dialogue.

Lomé Convention

Mr Cheysson did not go into details of how the convention is working now that it has been in operation for almost a year (this will be covered in our next edition). But he went over the following points:

— The results of year one are satisfactory. The EEC's partners have seen the originality of the cooperation established by the Convention and full use is being made of the instruments provided. The Lomé formula has gone beyond the ACP and is now being used for the Mediterranean countries as well, and there is world-wide recognition of its success.

— Much has been made in the press of the problems of the trade sector, which have been the subject of various EEC/ACP discussions. Mr Cheysson said the Convention was a breakthrough

in that it enabled discussions and negotiations of this sort to take place. In different circumstances such problems would be settled by unilateral decisions. But, despite certain controversial issues, the answers provided or inspired by the Lomé Convention have given substantial guarantees to the ACP. Mr Cheysson chose the example of beef and veal, where the ACP are not subject to an import ban and where, in addition, they receive export dues equal to the duties normally paid on imports. There is also the example of the sugar protocol, which means that the ACP get 110-120 EUA per tonne above the world price. Mr Cheysson also said that although we hear less about the rapid progress made with financial cooperation, in the space of 12 months, commitments have in fact been made for 168 projects, representing almost 20% of the amounts available under the EDF.

All the instruments (micro-projects, risk capital, regional projects etc), including the new aspects of the Convention, have been put to use, illustrating the flexibility of this type of cooperation.

This flexibility was no more apparent than in the ever-increasing Community contributions to joint schemes involving individual member states and Arab aid as well. Ten major projects are already being co-funded and many others are in preparation. And the decisions of the Arab/African summit in Cairo open the way for even more encouraging three-way cooperation schemes in the future.

Flexible too is the way in which the Community reacts in face of problems affecting one or other of its ACP partners. The amount of special aid Mr Cheysson said, is proof of this—particularly in the countries of southern Africa, where the Community has helped cope with the economic difficulties arising from the political upheavals there.

Southern Africa

Mr Cheysson mentioned his recent trip to southern Africa, to Botswana and Lesotho, saying he returned convinced of the importance of Europe's presence in the region. Although it was an economic presence, the commissioner believed it was vital for Europe to help show that harmonious economic development in countries around South Africa is possible within the framework of democratic structures where there is no room for racial discrimination.

It was also vital, Mr Cheysson felt, for Europe to state clearly, as it has in fact done, what its irrevocable principles are—racial equality, the acceptance of

majority rule, the right of peoples to choose their own destiny and the respect of human rights.

Commission proposals for the resumption of the North-South dialogue

In answer to a number of questions, Mr Cheysson commented on the Commission proposal for a world-wide Stabex scheme. The Commission wanted the Community to be in a position to formally put forward a clear-cut project on this subject at the next session (due to end with the ministerial conference of 30 May - 1 June) of the North-South dialogue.

As things stand, the Commission proposal does not choose between the possible technical formulae—either a mechanism which acts independently for each product (as in the Lomé system) or one which works on a country-by-country basis and takes account of all commodity exports (with the attendant compensation as between expanding and decreasing earnings).

The Commission has not made its choice—which must also take the position of other industrialized countries into account—but it does propose that the system be reserved for the least-favoured countries, although it should cover a wider range of products than the Lomé Convention.

Mr Cheysson welcomed the similar proposal made by the West German government at the European Council—although he said an earnings stabilization system alone cannot solve the overall problem of commodities. The mechanism was aimed at stabilizing export earnings rather than prices. In certain cases, the right way of avoiding wild fluctuation in prices had to be sought. This could involve individual product agreements with buffer stocks, in which case the Community should be in a position to indicate without delay which products would get priority. Other ideas for commodities should also be put forward, in the first place by the industrialized countries, such as lifting restrictions on exports and promoting investment—on this latter point Mr Cheysson raised the American idea of setting up a "resources bank", which he said could be reconsidered in a different form.

With the resumption of the North-South dialogue, the EEC development commissioner also confirmed that the Commission had proposed that the industrialized countries should immediately raise up to \$1000 m as special aid for the poorest countries. The oil-producing

countries would be invited to match this initiative.

Besides extra official aid to the poorest countries, new financial means must be found to help the more advanced developing countries to maintain and, if possible, to increase their import capacity. For the EEC, which sends 20% of its exports to developing countries outside the oil producers' group (as much as the US and the East bloc combined), this is a vital economic necessity. The IMF or the World Bank might be the best sources of these new funds, Mr Cheysson suggested. □

FAIRS AND EXHIBITIONS

Milan Trade Fair

Large number of ACP stands

In 1968, for the first time, five African States took part in the EEC-organized Milan Fair. Both visitors and participants showed keen interest.

The "Africa Palace"

Nine years have gone by since that first appearance and considerable progress has been made. Trade between Italy and Africa has expanded and Italian industry is better represented in Africa. African states played a greater part than ever before this year and they have at last found, in the Africa Palace, a proper setting to show their goods, and the only one of its kind in Europe. Today, 14 states of Africa have permanent trade offices there. They are vast and well-equipped and provided free of charge by the fair management. Eight other states have also found a place at the fair, thanks to the EEC, which has provided them with trade information, offices and an extra exhibition hall.

The African states' financial resources are inadequate but they should nevertheless be able to buy more and more industrial and technological products and export more and more raw materials to Italy.

This emerged from what representatives from 20 African states at the Milan

Fair said this year to Italian businessmen and heads of firms. It was also evident from the vast range of quality tropical products which, along with the detailed technical and commercial literature at each stand, gave a picture of the economic life and geography of the different countries by presenting a vast panorama of Africa as it is today.

The major new event for visitors to the Africa Palace this year was the presence of English-speaking states, which, with EEC help, were taking part for the first time. They were Ghana, Kenya, Liberia, the Sudan, Tanzania, Uganda and Zambia. There were also the veterans of the Milan Fair, Cameroon, Congo, Ivory Coast, Gabon, Madagascar, Mali, Niger, Senegal, Somalia, Chad and Zaire. Among this list of participants are some of the world's major producers of coffee, cocoa, groundnuts and other oil seeds, bananas and other tropical fruit, vanilla, valuable woods, cotton, rubber, hides and skins, copper, iron, and diamonds. Samples of many products were on display and the African states also exhibited a wide range of local handicrafts and publicised their main tourist attractions.

Salon des Vacances in Brussels

At this year's tourist fair in Brussels 13 ACP states were represented, more than doubling the number that participated in the 1974 fair. Four non-ACP developing countries also took part. The fair enabled those developing countries with a growing tourist trade to show visitors the wide variety of holidays that are now available, particularly in Africa. During the fair the EEC organised a symposium on tourism and development, under the chairmanship of Mr Arthur Haulot, the Belgian commissioner-general for tourism, which brought together representatives of ACP countries, experts from the European Commission as well as representatives from the tourist industry and airlines. Among the representatives of the ACP states who gave their views on the value of tourism and its role in development were Mr Moustapha Fall from Senegal, Mr Zinsou from Ivory Coast and Dr Mensah from Ghana. They all said that their countries had decided against mass tourism because of the adverse social effects that it could have. Doubt was also cast on the economic value of such tourism. Nevertheless tourism remains, according to the Air Afrique delegate, an important

economic factor for many developing countries, and in fact tourism in Africa in particular is growing faster than world-wide tourism in general. Several representatives suggested that the EEC take further action to help ACP states participate in international tourism fairs such as those to be held soon in Germany, Switzerland and France. Mr Lewis, from Trinidad and Tobago, expressed the hope that there should be more cooperation and exchanges of information between the Caribbean and African countries involved in tourism within the ACP group.

Brussels Trade Fair

The 50th international trade fair opened in Brussels on 23 April with the largest number of ACP states so far tak-

ing part. Of the 31 official national stands, 15 were from the ACP countries, with several English-speaking states represented for the first time. The promotion of ACP products through trade fairs is part of the commercial cooperation between the EEC and the ACP countries under article 13 of the Lomé Convention. The Community has provided funds from the EDF for the stands, equipment and publicity, as well as a liaison bureau to provide visitors with information. The ACP participants provide the staff for the stands, and, of course, the products which they want to promote on the European market through the trade fair. These include almost every commodity, large and small, from Jamaican coffee to Mauritanian fish, but more noticeable is the increasing number of manufactured goods including such things as carpets, plastic goods, textiles, cigars and processed fruit products. □

EUROPEAN DEVELOPMENT FUND

Following the favourable opinion of the EDF Committee, the Commission has taken the following financing decisions, raising to 566 062 000 EUA the total commitments entered into under the fourth EDF.

Niger — *Gardens of the department of Agadez* (3rd EDF): Grant: 335 000 EUA equivalent to approximately 93 541 000 F-CFA.

It is intended to develop irrigated crops in the Department of Agadez thanks to the existing gardens now in order, with intensive cropping, thus increasing the Department's food self-sufficiency whilst the supply of the region's urban and mining centres seriously affected by the drought will be improved with market garden products.

The project includes plans to stop the deterioration of the soil by means of reafforestation, and develop and intensify cooperative movements at producer level.

The area affected by the measure is the Teloua valley: 800 farms are concerned covering a total area of 600 ha worked on a twin crop system. This operation should raise the average financial output of each farm from 62 000 to 145 000 CFA per annum.

The duration of this project is fixed at 3 years and its costs amount to

335 000 EUA on top of which comes 130 400 EUA charged to the Nigerian budget.

Liberia — *Buto oil palm plantations* (4th EDF): Grant: 9 100 000 EUA equivalent to approximately 10 128 000 \$ Lib.

The purpose of this project is to establish an industrial plantation together with an outgrower scheme on the outskirts of the small port of Greenville in Sino County, about 250 km south-east of Monrovia. Production is estimated at 19 000 t of palm oil and 3 500 t of kernels.

This financing covers the first five years of the estate and the first two years of the outgrower scheme.

The project is part of a group of agricultural schemes designed to diversify the country's export earnings which, up to now, have come almost exclusively from rubber and wood.

More particularly, this financing is to be used to establish one of the three oil-palm estates which are to be set up in different parts of the country and which

should produce 55 950 t of palm oil and 10 450 t of kernels for export.

The EIB has been approached on the subject of financing the oil mill needed to process the produce of the Buto plantation.

The Community contribution comprises:

- construction of a main access road to the plantation,
- forest clearance and land preparation,
- upkeep of the industrial plantation for five years,
- construction of all necessary buildings,
- purchase of vehicles and mobile plant,
- formal training abroad of local specialized personnel.

Liberia — *Extensions of the Phebe Hospital in Suakoko* (4th EDF): Grant: 410 000 EUA equivalent to approximately 456 000 \$ Lib.

The aim of this project is to increase the capacity of the Phebe Hospital in Suakoko (Bong County) by extending in-patient facilities and providing the attendant equipment.

The initial capacity of this state general hospital (opened in 1965) was 65 beds and this has been gradually increased by bringing in extra beds to attain the present capacity of 90. In spite of this increase, the hospital is no longer able to cope with the demand for beds.

This project aims to strengthen the existing infrastructure so as to raise the capacity from 90 to 155 beds, with 80 beds in the existing buildings (instead of 90) and a 75-bed extension, which will provide the population of the region concerned in the short term with the medical care it needs.

The projects also covers the necessary back-up work such as connections to services (water, electricity, sewers) and the supply of air-conditioning plant and simple hospital furniture.

The project is designed to increase the number of beds in Bong County, where 13% of Liberia's population lives, to improve mother and child health protection services, and to accentuate this hospital's role as a referral establishment and training centre.

Togo — *Agricultural development in the Kara valley* (4th EDF): Grant: 2 698 000 EUA equivalent to approximately 746 806 000 F-CFA.

The development of this region is in line with the objectives and priorities set by Togo's development policy, which are to even out regional differences and develop the rural sector with a view to

covering the population's food requirements.

The Community aid will be used to settle 800 families from overpopulated regions of the country in a 4 000-hectare area of arable land in the Kara region.

An identical experiment, carried out on a smaller scale under the second EDF and concerning only 200 families, has produced satisfactory results. The body responsible for running the project is the Lama Kara Sorad (regional company for improvement and development).

- In the main, the project will involve:
- soil preparation,
 - building a network of tracks,
 - sinking wells,
 - building storage sheds,
 - providing miscellaneous equipment,
 - a contribution to the building of housing for the families (in which the Togolese Government is also participating).

It is expected that the project will bring in a substantial income for the peasants involved and reduce the food shortfall, and hence the volume of imports, while at the same time helping to right the structural imbalances between the regions and between the towns and the countryside.

Senegal — *Waste water drainage in the Bay of Soumbédioune* (4th EDF): Loan on special terms: 3 750 000 EUA equivalent to approximately 1 038 000 000 F-CFA.

Duration 40 years — 10-year grace period—interest rate 1%.

The extremely rapid urbanization process in the Cap Vert peninsula has made it necessary to carry out a wastewater and rainwater disposal programme for Dakar and its surroundings.

Senegal's development plan provides for immediate action in this field and this financing is part of the steps taken.

- The project involves the following:
- collection and piping of the waste water to Fann Point (this water is at present discharged in the Bay of Soumbédioune or on University Beach);
 - construction of an underwater pipeline to convey the wastewater from Fann Point to the open sea;
 - rebuilding part of the Gueule Tapée canal.

The project aims to improve sanitary conditions on the Corniche Ouest of the town and set up infrastructure that is suited to the tourist industry.

Mauritania — *Intensification of agricultural production in the valley of the river Senegal* (4th EDF): Grant:

1 684 000 EUA equivalent to approximately 93 176 000 ouguiya.

This grant is intended to increase the production of fourteen irrigated areas covering a total of 462 hectares and involving over 1 000 farmers grouped together in fourteen cooperatives.

The land in question is located in the Senegal valley between Rosso and the village of Maghama, near Matam.

The farmers will be provided with the supervisory staff and inputs needed for the intensification of crop growing; it is also planned to provide additional equipment for the cooperatives (small sheds, etc.).

The project is designed to meet the Mauritanian government's major aim, which is to keep the maximum labour force in rural activities and ensure that the people concerned have sufficient food, even in periods of drought, by enabling two annual crops to be grown through the use of intensive farming techniques and the harnessing of the water resources.

It should be noted that on one of the irrigated areas, solar energy is being used for the first time to pump the water: it is to be hoped that this will not remain an isolated experiment.

Malawi — *Development and asphaltting of the Blantyre-Chikwawa road* (41.5 km) (4th EDF) Grant: 5 993 000 EUA equivalent to approximately 6 077 000 Kwacha.

This financing will pay for the modernization and asphaltting of the highway linking Malawi's main urban centre, Blantyre, with the town of Chikwawa, 41.5 km away.

The existing road is both difficult and costly to maintain and, what is more, it cannot be used in the rainy season.

The aim of this project is to render communications between the Shire valley—which, in a few years' time, will be an important agricultural area—and Blantyre both safe and easy.

In addition to the asphaltting, the EDF financing will also pay for works supervision.

Burundi — *Construction of housing and social infrastructure and improvements to water supply systems in the Teza and Rwegura tea-growing centres* (4th EDF): Grant: 862 000 EUA equivalent to approximately 865 000 fr. Bu.

This project involves building and equipping housing and social infrastructure for supervisory staff and workers on the Teza and Rwegura tea estates and it also includes improvements to the water supply systems in both centres.

It aims to improve the living conditions of the staff and thereby step up the returns from the investments (plantations and factories) already financed by the European Development Fund at a total cost of about 23 million EUA. These investments permitted the development of 3 480 ha of plantations and the construction of three tea factories.

More specifically, this project involves the construction of houses, two primary schools, a dispensary and a social centre.

Botswana — Maun vocational training centre (4th EDF): Grant: 179 000 EUA—at present about P 174 150.

This project is closely linked to two other operations also included in the Botswana indicative programme, namely the aerial surveillance project and the livestock development and conservation programme.

It involves setting up a vocational training centre at Maun, which would come under the Department of Wildlife, National Parks and Tourism. With a view to conserving animal species and protecting the environment, the Centre will be used to provide training and refresher courses for the various categories of staff in the Department. It will also be used for seminars arranged for various groups of the population, with a view to making more rational use of the country's wildlife resources.

In addition to the EDF grant, the project will receive a contribution of 100 000 EUA from the Rockefeller Brothers Fund and bilateral aid from the United Kingdom will provide a zoologist for two years.

Malawi — Lakeshore development project, Phase III (4th EDF): Grant: 8 200 000 EUA—at present about MK 8 355 800.

The first two phases of this operation produced very satisfactory results; they were financed by German bilateral aid.

This integrated rural development project is aimed at increasing agricultural production and farm incomes in the south-west littoral of Lake Malawi; it is also intended to improve the rural communities' living conditions (public health and rural roads).

The crops receiving attention will include rice, groundnuts, maize and cotton. Livestock production will also be encouraged, together with the distribution of work oxen. The total cropped area is at present more than 80 000 ha. The total population of the area covered by phase III of the project is estimated

at 268 000, about 5.4% of the total population.

The anticipated annual incremental production at the end of a project life of five years will total 11 800 short tons maize, 3 250 short tons groundnuts, 2 900 short tons rice and 3 230 short tons cotton, with an overall value of MK 2.7 million (2.67 million EUA).

The total cost of the project is estimated at 10 318 000 EUA. Community aid has been requested to provide 8 200 000 EUA in the form of a grant. The remainder will be funded by the Malawi government.

Niger — Rural development of the department of Zinder—phase II (4th EDF): Grant: 6 990 000 EUA—at present about F-CFA 1 935 705 000.

This project, which is the follow-up to the first scheme financed by Community aid for an amount of 2.2 million u.a. in 1975, consists in an intensification of these initial operations in the area of Matameye and part of the districts of Mirriah and Magara and in an extension of the operations in the north of the Mirriah district and in the east of the Magaria district.

The project, which is to take four years to implement, in a very populous region, where there is a danger that over-exploitation of the land may accelerate its deterioration and induce migration, is aimed at:

- (i) intensification of food crops and groundnut cultivation;
- (ii) maintenance and even improvement of soil fertility;
- (iii) setting up a peasant structure and training for self-supervision.

Rwanda — Study on the Ruzizi II hydroelectric station (4th EDF): Grant: 1 200 000 EUA—at present about 124 320 000 fr. Rw.

This financing covers the preparation of the detailed draft project and the compiling of the invitation to tender dossier for the Ruzizi II hydroelectric station to be built at Kitimba on the Ruzizi river, which constitutes the frontier between Rwanda and Zaire. As is already the case with the Ruzizi I station, situated upriver, the present project is designed to serve a regional purpose, i.e. to supply the Great Lakes region—comprising Burundi, Rwanda and the easternmost part of Zaire—with electricity.

By setting up in 1974 an association for the study of the electrification of the Great Lakes region (EGL), Burundi, Rwanda and Zaire revealed their determination to apply regional solutions to the problems of electricity supply.

Jamaica — 2 000 acre banana plantation (4th EDF): Special loan: 3 067 000 EUA—at present about J\$ 3 122 206.

This special loan is for banana plantations covering a total area of 2 000 acres at Morani, Eastern Potosy, Decoy and Elim. Bananas—the Valery and Williams varieties being the type chosen for this project—constitute a very important crop for Jamaica and form the country's second agricultural export to the protected United Kingdom market. That is why the government has made the re-launching of banana production one of its top priorities.

When capacity operation is achieved, the project will provide 100 000 man-days of work p.a. and will bring J\$550 000 to a labour force which had virtually no money income. The plantation will be run by the Banana Board.

In addition to the work on planting proper and the upkeep of estates not in production, this project also provides for the construction of four packaging workshops, seven shortage sheds and various other sheds, six accommodation units for the supervisory staff, communal facilities and a water distribution network.

The total cost of the operation is 3 500 000 EUA, of which 3 067 000 EUA will be provided by the special loan from the EDF, the remainder being supplied by the Jamaican government.

Tanzania — Agriculture development project in Iringa Region (4th EDF): Grant: 6 000 000 EUA—at present about T Sh 56 148 000.

This project, lasting four years, is intended to increase agricultural productivity in certain areas which are representative of the various types of ecological conditions that exist in the Iringa region. It is designed not only to bring about a substantial increase in production in these areas (36 000 t maize, 2 000 t wheat, 8 000 t sunflowers and 2 600 t pyrethrum) but also to perfect methods of agricultural development which can be transposed to the region as a whole and to areas of Tanzania which, from the ecological and human angles, are similar. This project, which will directly affect about 70 000 families, includes the improvement of the economic infrastructure of the areas in question and of the region as a whole (service tracks), reinforced extension services and the introduction of improved cropping methods, in particular the use of draught animals.

Trinidad and Tobago — *Production of timber* (4th EDF): Special loan: 1 020 000 EUA—at present about TT\$ 2 741 760.

The Community financing is intended to contribute towards the establishment in the county of St. Patrick of 1 500 acres of teak and 2 250 acres of pine. The entire production will be used by the local population in carpentry, cabinet-making and joinery activities (9 000 m³ of teak).

This project—which will last five years—will, by creating new jobs, make it possible to combat unemployment, which is particularly serious in this region following the recession of the oil industry, and will thereby help to stop emigration.

The EDF will finance in particular basic infrastructure work (roads, building) and the production of plant material.

Comoros — *Exceptional aid* (4th EDF): Grant: 1 300 000 EUA—at present about F-CFA 363 350 000.

The purpose of this exceptional aid is to help the Comorian government to cope with a difficult situation resulting from the repatriation of many Comorian nationals living in Madagascar and with the problems involved in resettling them.

The Community financing will be used mainly in the spheres of health and housing. The arrival of large numbers of refugees creates additional requirements as regards medical supplies and hospital equipment; certain hospital facilities should also be repaired and extended.

The Comorian government has also arranged for the distribution of building equipment and materials to enable the refugees to build houses for themselves on land made available to them by the state.

Malawi — *Lilongwe water supply project* (4th EDF): Grant: 2 380 000 EUA—at present about MK 2 425 230.

The steady development of Lilongwe as the capital of Malawi and as a regional centre makes it essential to extend the water supply network in the residential areas (in particular for the low-cost housing to be built in the next few years and, to a lesser extent, for the industrial and commercial requirements that are emerging in the development area of the capital).

The Community grant will cover the implementation of the entire project, namely:

- construction of reservoirs and booster pumps,
- improvements to treatment works,
- reticulation and extensions to mains,
- site supervision.

Congo — *Bridge over the river Niari at Loudima* (4th EDF): Grant: 1 800 000 EUA—at present about F-CFA 503 100 000.

The purpose of the project is to replace two obsolescent ferries by building a two-lane bridge, 142 m long, across the river Niari at Loudima and by improving the access roads (1.5 km) in order to enable the expanding volume of traffic, consisting of increasingly heavier vehicles, to flow smoothly. This project, which forms part of an overall plan for the road linking Loudima and Zanaga, will help implement the programme to develop the Zanaga forest region, which can only be exploited to the full if a good road infrastructure is developed.

Guinea-Bissau — *Replacement of three ferry boats at S. Vicente, Farim and Landim* (4th EDF): Grant: 1 080 000 EUA—at present about GP 46 893 600.

The Community financing covers the supply of three ferry boats, each with a useable capacity of about 40 tonnes, to replace those at S. Vicente, Farim and Landim, which are either out of use or in such a state of obsolescence that they no longer meet the traffic requirements and cannot guarantee a regular service. These ferries are located at points on surfaced main roads, and their replacement will enable permanent links to be re-established not only between the capital and the northern and north-eastern regions of the country but also with the Senegalese road network, especially in the Casamance area. The replacement of the ferries will be a major spur to the economic development of the northern areas of the country.

Kenya — *Veterinary centres and cattle dips* (4th EDF): Grant: 3 000 000 EUA—at present about K Sh 28 140 000.

The objectives of the project are to strengthen in general the animal health services in the Coast Province of Kenya, through:

- the building of eight veterinary centres,
- the construction of 135 cattle dips,
- assistance in the operation of 234 cattle dips (99 old and 135 new) over four years.

The Kenyan government attaches particular importance to the improvement of veterinary services, one of the main objectives of the 1974-78 development plan.

The total cost of the operation will be about 5 200 000 EUA, of which the EDF will contribute 3 000 000 EUA; it

should bring a 30% increase in animal production in the Coast Province, resulting in a significant improvement in the living conditions and incomes of the farmers, who will be concentrating more on dairy cattle than on beef cattle.

Swaziland — *Rural development project* (4th EDF): Grant: 2 500 000 EUA—at present about E 2 432 250.

Overall, this project involves almost 45% of the arable and pasture land, i.e. about 125 000 people working on 14 500 farms covering 400 000 ha in all.

The various schemes to be run should enable the production of the main food crop (maize) to be stepped up and cash crops (cotton and tobacco) extended. They also aim at improving cattle-farming and providing better living conditions for the Swazi peasant farmers.

The total cost of the project is estimated at 14.87 million EUA, of which 2.5 million EUA will be provided by the EDF grant, the remainder being shared by the African Development Bank (4.5 million EUA), the World Bank (3.5 million EUA), ODM (0.3 million EUA) and the Government of Swaziland (3.8 million EUA).

The Community contribution to the financing of the project involves a series of schemes geared primarily to providing back-up for eight minimum input (semi-intensive development) areas, as opposed to two maximum input (intensive development) areas.

The Community financing will mainly cover the following expenditure:

- supervisory staff,
- means of transport,
- (partially) inputs,
- training and technical assistance.

Ivory Coast — *Technical assistance for organization of the International Textile and Clothing Show (SITHA)* (4th EDF): Grant: 79 000 000 EUA—at present about F-CFA 22 080 500.

Community aid in the form of technical and financial assistance will help towards the preparation, organization and promotion of the African International Textile and Clothing Show—SITHA—which will be held in Abidjan from 2 to 5 May 1977, in particular through the canvassing and briefing of businessmen in the ACP states and in the industrialized countries likely to be interested in taking part in this specialized trade show.

At the first show held in 1975 following the success in 1974 of the Abidjan International Week of Textiles and Ready-to-wear Clothing (100 European

buyers, turnover of F-CFA 600 million), the following took part: 52 firms representing 10 English-speaking and French-speaking ACP states south of the Sahara, 150 European buyers and 22 specialized journalists. The exhibitors' turnover was F-CFA 1 200 000 000.

The Ivory Coast's aim is to improve the image of this specialized show as an international trade event, which is of real interest to ACP businessmen.

The EDF grant will be used for briefing and canvassing businessmen in the ACP states concerned, arousing the interest of international buyers (advertisements in specialized journals, circulars, publicity leaflets), technical organization of the show (reception, promotion and public relations, etc.).

Barbados — Construction and equipment of the community health centre at Litchfield, St. Peter

(4th EDF): Grant: 402 000 EUA—at present about Bds\$900 480.

This grant will enable a community health centre to be constructed and equipped at Litchfield (St. Peter parish).

This centre, which will be the second one of its kind in the country, will provide both preventive and curative health care within the same physical unit for the population of the rural areas in the north of the island, who are presently deprived of such basic health facilities.

In addition, this centre will provide a home visiting service and an environmental health control service for the rural population by means of the nursing staff and the health inspectors for whom the centre will serve also as a regional headquarters.

The centre will be equipped with simple and easily maintained instruments and materials adapted to local needs.

All ACP States and OCT and OD — 1977 programme of seminars

(4th EDF): Grant: 100 000 EUA.

This grant will be used to finance seminars in Europe and information sessions at universities or training establishments in the ACP states. These activities are intended for nationals of the states in Africa, the Caribbean and the Indian and Pacific Oceans (ACP) associated with the EEC under the Lomé Convention.

Information seminars on EEC-ACP relations have two principal objectives:

(a) to provide general information on overall relations between the European Community and the ACP states with particular reference to the prospects opened up for the ACP states by the Lomé Convention;

(b) to provide those responsible for the training programmes with information on the usefulness of the courses of studies or training programmes being followed by the participants, and their importance for ACP-EEC relations.

Seminars normally last two days and involve around 30 participants. They comprise talks placing the Lomé Convention in the context of the Community's development, visits to industrial establishments, ports, etc. and contacts with businessmen and industrialists at the places visited. At seminars organized for EDF scholarship holders, particular attention is given to the evaluation of the training provided by the various training centres and establishments.

Financing decisions on the programmes of the other ACP states will be taken in the course of this year and in early 1978.

It will be remembered that in July 1976 an overall commitment authorization of 8 000 000 EUA enabled scholarships and training grants to be financed in 1976 and 1977 for all the ACP states, without awaiting finalization of the detailed programmes for each country.

These programmes relate above all to scholarships and training grants.

The scholarships are for conventional university studies providing training for private or public administrative posts in the ACP.

The training grants are for the further training or re-training of established officials.

These bursaries are granted mainly to people specializing in the three areas of economics, agriculture and technical studies, at the intermediate and higher lev-

els. Postgraduate scholarships are also granted for further training or specialization.

The trend being followed by the Commission and the governments of the ACP states is to grant an increasing number of scholarships for studies or training locally—particularly in the sphere of conventional university training—and to award scholarships in Europe only for trainings or specializations which are not available locally.

A particular effort is being made to provide training in conjunction with infrastructure projects financed by the EDF in order to ensure the upkeep and functioning of the infrastructure.

At present, the number of ACP nationals holding scholarships is about 3 200 (since 1960 more than 30 000 scholarship-years have been awarded to nationals of the AASM and subsequently of the ACP states).

It should be stressed that the Community is endeavouring, jointly with the ACP states, to help scholarship or grant holders trained in Europe or locally to become integrated into working life in their countries of origin.

In addition, these programmes generally include funds enabling instructors—together with the appropriate logistical resources—to be made available to the states concerned for specific training schemes in sectors given priority status.

In order to be better able to meet executive staff training requirements, the Commission is working in close conjunction with bilateral aid sources, with which it is carrying out joint programmes in certain cases. In this context the Commission is using the services of

The Multinational training programmes — Grant: 19 558 000 EUA equivalent to

These ten programmes cover the following ACP States:

Country	Amount of multiannual training programme (in local currency)
BARBADOS	200 000 EUA (about BDS\$ 448 000)
BENIN	1 809 000 EUA (about F-CFA 505 615 500)
BURUNDI	3 300 000 EUA (about FBu 3 329 750)
GUYANA	545 000 EUA (about G\$ 1 556 520)
JAMAICA	2 790 000 EUA (about J\$ 2 840 200)
MALAWI	3 200 000 EUA (about MK 3 260 800)
RWANDA	1 300 000 EUA (about RF 1 346 800)
SIERRA LEONE	1 800 000 EUA (about Le 2 345 400)
TRINIDAD AND TOBAGO	2 082 000 EUA (about TT\$ 5 596 420)
UPPER VOLTA	2 532 000 EUA (about F-CFA 707 694 000)
	<hr/> 19 558 000

certain institutes in the Member States which have acquired special experience in the training of executive staff from the developing countries.

Moreover, short seminars, symposia and briefing sessions are held in Europe annually for African students from the ACP states and other African countries who are studying in the Community countries.

Botswana — Countrywide animal and range assessment

(4th EDF): Grant: 697 000 EUA—at present about P 678 110.

The object of this project is to obtain information on the basic range and the numbers of wild animals in Botswana's thinly populated areas. These areas constitute approximately two-thirds of the country (400 000 km²).

This information is indispensable for the implementation of the government's livestock policy for these areas. It will, moreover, enable the Department of Wildlife, National Parks and Tourism of the Ministry of Commerce and Industry to work out a national programme for managing the resources of its thinly-populated areas.

This project will involve an aerial survey of the areas concerned and the corresponding work on the ground.



Photo J.L. Debatze

Mr Cheysson (left) with Dr Nkengong Monie

EDF: Financing agreements signed wholesale in Brussels

Only a few days before the opening of session two of the EEC/ACP Council of Ministers in Fiji, an important step forward was made in the financial and technical cooperation provided by the Lomé Convention, when a whole series of training and financing agreements were signed. The amount involved was 85 441 000 EUA, which will come from the 4th European Development Fund.

The formal signing ceremony was attended by Claude Cheysson, EEC development commissioner, and the representatives of the 18 recipient ACP states.

A series of agreements

The 14 financing agreements represent commitments of 65 885 000 EUA on the part of the Community. Twelve countries are involved, six of them (Burundi, the Congo, Mali, Rwanda, Senegal and Zaire) ex-AASM, accounting for 26 769 000 EUA or 40% of the total, and six (Botswana, Jamaica, Kenya, Liberia, Malawi and Tanzania) new ACP states, accounting for 39 116 000 EUA or 60%. Several of the projects are in Botswana and Malawi and there is one regional project combining Burundi, Rwanda and Zaire.

Grants preponderate in number (12 projects) and value (90% of the total).

Rural development accounts for 48%, energy for 31%, communications 12% and urban water supplies 9%.

Cameroon

A financing agreement between the EEC and the Cameroon National Ports Authority was signed in Brussels on 25 March 1975.

After the December 1976 financing decisions on EEC help with the port of Douala's extensions (a 2 218 000 EUA grant plus a 2 000 000 EUA loan on special terms), Claude Cheysson, EEC development commissioner, signed a financing agreement with John Monie Nkengong, Cameroon's Minister for Transport.

The project involves extending and improving operating conditions in the currently saturated port of Douala. The main thing is to build a new timber store and a container wharf, deepen the access channel, built a new fishing port and naval repair yard and lay on the necessary railway links.

These improvements should mean that the port—where there are already other EDF-financed installations—will be able to handle the anticipated general goods, timber and fish traffic in 1985. In addition, the work is intended to optimize previous investments in the country's transport network (the Trans-Cameroon railway and the road system).

It is important to realize that the size of the project—which will cost an estimated 95 million EUA—has led the

Cameroon authorities to approach a whole series of funding organizations, in addition to the EDF, to help the state's own efforts. The other sources of financing are CIDA, the ADB, ABEDIA, the IBRD, the CCCE, FAC and Germany.

Fourth EDF commitments to Cameroon so far total 15.5 million EUA, including 3.6 million under Stabex (for untreated timber) and 11.9 million for the financing of various projects.

Ethiopia

Ato Teferra Wolde-Semait, Ethiopia's Finance Minister, visited the European Commission on 23-25 March 1977 when he and Mr Cheysson signed the first EEC/Ethiopia financing agreement under the Lomé Convention (see our article "Ethiopia: the economy after three years of revolution").

EIB

Ivory Coast

Two loans totalling 9 150 000 EUA (about F-CFA 2 570 million) have been granted by the European Investment Bank under the terms of the Lomé Convention in support of an industrial venture and a hotel project in Abidjan, Ivory Coast.

The larger of the two loans, for 7.5 million EUA (about F-CFA 2 100 million) has been made available to Palmindustrie, a state owned company, for a 13-year term at an interest rate of 6 1/2%, after allowing for a 3% interest subsidy from the resources of the European Development Fund under the Convention.

The funds will be used to part-finance a palm and coconut oil mill, directly creating some 200 jobs, the total cost of the project being F-CFA 4 890 million.

Palmindustrie is a member of the SODEPALM group which is of key importance to the Ivory Coast economy. It is the 3rd largest world exporter of palm oil.

In 1969, the Bank advanced 9.1 million u.a. under the first Yaoundé Convention towards construction of eight palm oil mills in the south of the Ivory Coast.

The second loan, worth 1.65 million EUA (about F-CFA 460 million), provided for 13 years at an interest rate

of 6 1/2% (after deducting the interest subsidy), has gone to Société Immobilière de la Lagune of which the promoters and shareholders are SCOA and NOVOTEL (Société d'Investissements et d'Exploitations Hôtelières — France).

The proceeds will be used for constructing a 288 room hotel, to be run under the name NOVOTEL, on the banks of the lagoon in the centre of Abidjan, providing more than 300 new jobs.

This project, estimated to cost a total of F-CFA 2 843 million will boost hotel capacity in the Abidjan conurbation, which is of major importance to the country's development, both as an administrative and business centre and hub of tourism. It accords with the Ivory Coast Government's policy in this sector, expansion of which helps to diversify the economy.

The two latest loans bring to 97.95 million EUA total EIB financing in the Ivory Coast under the two Yaoundé Conventions and the Lomé Convention.

These operations, financed either from the Bank's own resources (60.35 million EUA) or from the European Development Fund (special loans totalling 37.6 million EUA) have contributed towards the implementation of 23 industrial and infrastructure projects.

Tanzania

Under the terms of the Lomé Convention, the European Investment Bank has agreed to provide assistance to industrial development in Tanzania in the form of risk capital.

The operation will comprise the purchase by the Bank of convertible bonds to the value of 2.5 million EUA (equivalent to 23.3 million Tanzania shillings) to be issued by the Tanganyika Development Finance Company Ltd. (TDFL). This will be the EIB's first intervention in Tanzania.

The funds to be provided to TDFL will be used by that company, with the Bank's agreement in each case, to finance various industrial ventures throughout the country.

This operation is financed from the sum of 95 million EUA provided under the Lomé Convention signed between the EEC and African, Caribbean and Pacific (ACP) developing countries for various forms of risk capital assistance, the management of which is entrusted to the EIB.

The Tanganyika Development Finance Company Ltd. was established in 1962 and its shares are held equally by the

Government-owned Tanzania Investment Bank (TIB) and three development agencies of EEC member countries: the Commonwealth Development Corporation (CDC) of the United Kingdom, the Deutsche Gesellschaft für Wirtschaftliche Zusammenarbeit (Entwicklungsgesellschaft) mbH (DEG) and the Nederlandse Financieringsmaatschappij voor Ontwikkelingslanden N.V. (FMO).

During its almost fifteen years of existence the Company has provided industrial ventures in a wide range of sectors with financial assistance in the form of loans or shareholdings or a combination of both, as well as managerial and consultancy services. At end 1976, it had committed some 140 million Tanzania shillings (15 million EUA) to 57 different projects, in which nearly 18 000 jobs have been created.

COUNCIL

EEC development ministers met in Brussels on 22 March. Some progress was made on the coordination and harmonization of development cooperation policies and agreement was reached on the coordination of emergency and humanitarian aid projects.

A number of questions relating to food aid were settled but the Council failed to agree on the principle of aid for non-associated developing countries.

Coordination and harmonization of development cooperation policies

Mr Cheysson presented an interim report by the Commission on the implementation of the Council's Resolution of 8 November 1976 on the coordination and harmonization of development cooperation policies.

The report notes that progress has been made within the framework of international organizations and points to the advantages of having Commission delegates on the spot in the ACP countries.

Mr Cheysson suggested various ways of widening the scope of development projects for the future. To get away from the "country by country" approach, regional meetings or meetings dealing with various areas of development (agriculture, water engineering, solar energy...) could be organized.

The next Council meeting on development will look into some specific problems on the basis of communications from the Commission. These will include a paper on forms of cooperation based on joint development projects carried out in association with non-member countries (the oil-producing countries, for instance).

Mr Cheysson told the Council that the Commission planned to submit a communication within the next few months on interaction between the Community's internal and external policies.

Emergency and humanitarian aid

The Council adopted a resolution on the coordination of Community and individual states' emergency and humanitarian aid projects.

In it the Council stresses the desirability of strengthening "the efficiency and consistency of Community and national intervention measures designed to meet requirements created by natural disasters or comparable exceptional circumstances".

The Council pointed to the value of an inventory of Community and national facilities which could be pooled in suitable cases. It invited the Commission to sub-

mit proposals for implementing the resolution's guidelines on the provision of immediate help and short-term emergency aid before 1 July 1977.

Lastly, at the Dutch delegation's suggestion, the Council agreed to hold a general discussion at least once, but possibly twice a year on fundamental problems arising in relations with developing countries, with the aim of ensuring greater consistency between the development cooperation policies of the Community and the individual member states.

Aid for non-associated developing countries

Because of the objections raised by one member state, the Council was unable to approve the proposal for a regulation on Community financial and technical aid for non-associated developing countries. Since the proposal is based on Article 235 of the Treaty, the Council's decision must be unanimous.

The Council will return to the proposal at its next meeting, when it has received Parliament's opinion.

Meantime, the Commission has been invited to submit proposals for the allocation of financial and technical aid appropriations (45 million EUA) for non-associated developing countries inserted in the 1977 budget at Parliament's insistence.

Food aid

The Council made some progress in improving food aid strategy. To quote

the official press release, "the Council reached agreement on a series of questions, namely: the general aims of food aid; the criteria for selecting the recipient countries and determining quantities; a speeded-up decision-taking procedure for emergency action in the case of disasters of human origin (a procedure to complement that already in force for natural disasters); the possibility of undertaking triangular food-aid operations; certain special mobilization procedures for national food-aid measures in the form of cereals; certain procedural and administrative questions, including the expression of food-aid in financial terms".

The Council agreed to continue its discussions of a number of other topics when it meets in June. These include stepping up the volume of food aid, the gradual transfer to the Community of responsibility for aid projects, the provision of aid for the constitution of stocks in recipient countries and the supply of processed cereal products.

The attitude of a number of delegations to the volume of food aid prompted Mr Cheysson to withdraw the Commission's proposal for a switch to three-year food aid programmes. Unless there is a change in attitude the Commission will confine itself to submitting annual proposals.

Relations with non-governmental organizations

The Council noted a progress report on this new form of cooperation "which looked very promising for the future".



ACP EMBASSIES

Kenya: Ambassador Muliro presents his credentials

Ambassador Muliro was born in 1932, and was educated at the Maseno Secondary School and the Royal Technical College in Nairobi. Subsequently he took his B.A. in politics, economics and sociology at Makerere College in Uganda. He began his career in the administration by becoming a district officer, moving up two years later to become a District Commissioner. From 1964 Ambassador Muliro held a number of posts in Nairobi including Deputy Secretary in

the Ministry of Commerce and Industry. He specialised in industrial development and also dealt with market questions within the East African Community. It was in 1970 that he was first appointed to the diplomatic service becoming Kenya's ambassador to the Nordic countries. This also meant playing a role in various international forums including the Trade and Development Board in Geneva, and the UN working group which drafted the Charter of Economic Rights and Duties of States. Before taking up his present post in Brussels, Ambassador Muliro participated in the pre-Lomé negotiations with the EEC. During this period he also participated in the 7th UN Special Session. Ambassador is married with five children.

Two women development ministers

The Chair at the development ministers meeting was taken by the British Minister for Overseas Development, Mrs Judith Hart, and also at the table was the new German minister Mrs Marie Schlei. This is the first time two women ministers have served on the development Council. For Mrs Hart, who was appointed minister during the government changes in London that resulted from the death of the British Foreign Secretary, Anthony Crosland earlier this year, it was a return to her old job. This is the third time she has been responsible for development, having served in 1969-70 and again in 1974-75. Mrs Hart who was the first women minister for development in Britain, has made a significant contribution to thinking on third world development in her country through her writings, and work on the ruling Labour Party's National Executive Committee. Mrs Schlei is a leading member of the parallel party in West

Judith Hart



Germany, the Social Democrats. She is the fifth German development minister since the post was created in 1952, and again the first woman to hold the post in Germany. She has been a member of the Bonn parliament since 1969 and before taking up her new job was parliamentary Secretary of State in the Federal Chancellery where she was a close collaborator of Chancellor Schmidt.

REGIONAL PROJECTS

The EEC Commission has just approved—with ACP agreement—programming for the first instalment of financing (some 300 million EUA) earmarked for regional cooperation under the Convention. This instalment just covers applications formally submitted by 30 September 1976 by the ACP States and various regional and inter-re-

Breakdown of regional projects by sector	
Sector	million EUA
Production	39.0 (23.2%)
Infrastructure and transport	82.0 (48.9%)
Technical assistance and training	12.9 (7.7%)
Trade promotion of industrial cooperation	
pre-investment studies	18.0 (10.7%)
Miscellaneous and undistributed	8.4 (5.0%)
Total	167.8 (100.0%)

gional organizations. It involves 207.8 million EUA and covers 49 projects and action programmes in 41 ACP States. The vast amount of aid which the ACPs requested for regional cooperation led

Marie Schlei



the EEC to lay down selection criteria for the projects.

Of the first 207.8 million EUA instalment, 147.8 million will go to Africa, 30 million to the Caribbean and 10 million to the Pacific. Added to this is 20 million for general cooperation. Financing decisions for the programme will be taken as each project is assessed.

The table reveals a heavy emphasis on transport infrastructure, particularly roads, and shows that more directly productive investments (such as the CIMAO West African cement project) account for more than 25% of the total.

STABEX

First batch of transfers for 1976

The Commission has decided on the first batch of transfers to be paid for 1976 under Stabex, the export earnings stabilization system set up by the Lomé Convention. The amount involved is 24 140 823 EUA.

The Commission has so far allowed 11 of the 21 applications received for Stabex 1976 compensation and will be making proposals for transfers to 9 ACP States in respect of 8 products. Five applications are still being processed and a further five, from three ACP States, did not qualify.

Thirty one per cent of the amount involved in the first instalment of the second set of payments has gone to states who have suffered a loss in export earnings due to the economic situation (sawn timber and sisal) and 69% to those who have lost out due to local circumstances—exactly the opposite of last year's figures.

Most of the transfers are grants

Loans will account for 23% of the transfers. The other 77% will be in the form of grants for some of the poorest ACPs, bringing about a considerable increase in their share of the aid.

The table below gives, by country and product, the amounts decided by the Commission, and the percentages they represent of the whole.

RWANDA

Round table on external aid

The Rwandan Government held a round table on external aid, to which the Commission of the European Communi-

ties was invited, at Kigali from 17 to 19 February 1977.

The conference, chaired by Lieutenant-Colonel Aloys Nsekaliye, Minister of Foreign Affairs and International Co-operation, aimed at discussing the state of development cooperation between Rwanda and the various sources of external aid and to lay the foundations of a five-year (1977-1981) development plan.

External aid went up from RF 2 288 million (some 22 880 000 EUA) to RF 5 716 million (some 57 160 000 EUA) over the 1972-1975 period. The five year plan will cost some US\$ 600 million (about 540 million EUA, of which about 70% will have to be covered from foreign aid. It is worth noting that Rwanda is receiving 59 million EUA from the 4th EDF and various other sources of aid provided under the Lomé Convention (food aid, micro projects and emergency aid of which it has already received 4 million EUA), in addition to help with regional projects.

The main topics dealt with at the conference were:

- rural and social development;
- industry, mining and craft industries;
- infrastructure, services and the organization of technical assistance.

These various points were developed during the debates and recommendations were ultimately adopted.

Such meetings are undeniably good both for the countries, which have concrete bases for their development planning, as well as for the various funding organizations, which can adapt their aid to the development aims of the individual countries as a result. □

P.R.

Recipient ACP States	Product	Amount of transfer (EUA)	%
BENIN	Cotton in bulk	2 750 347	11.39
	Palm oil	765 576	3.17
CENTRAL AFRICAN EMPIRE	Cut timber	549 807	2.28
FIJI	Copra oil	1 499 934	6.21
MADAGASCAR	Sisal (1)	1 762 943	7.30
NIGER	Groundnut oil	6 755 991	27.99
	Groundnut oil cakes	153 269	0.63
SIERRA LEONE	Iron ore	3 977 274	16.48
WESTERN SAMOA	Copra (2)	643 066	2.66
TANZANIA	Sisal (1)	5 165 208	21.40
TONGA	Copra (2)	117 508	0.49
		24 140 823	100

(1) Total sisal : 6 928 151 = 28.7%.

(2) Total copra : 760 574 = 3.15%.

NEW MEMBERS

During a ceremony which took place on 28 March at the end of the second meeting of the ACP-EEC Committee of Ambassadors in Brussels, the Agreements by which the Republic of Cape Verde, Papua New Guinea, and the Democratic Republic of Sao Tomé and Príncipe accede to the Lomé Convention were signed. The three new members were represented by José Brito, State Secretary for Co-operation and Planning of the Republic of Cape Verde, Pete Dickson Donigi, Chargé d'Affaires, Em

bassy of Papua New Guinea, Leonel Mario Dalva, Minister for Foreign Affairs of the Democratic Republic of Sao Tomé and Príncipe.

The accession of the three new States to the Lomé Convention will become effective after ratification of the agreements. These States will then enjoy the same rights and be subject to the same obligations, under the Convention, as the other ACP States.

In order to take account of the accession of the three new States to the Lomé Convention, the Community has decided to increase the amount of aid intended for the ACP states under the Convention by an overall sum of 22.5 million EUA.

Pending the completion of the procedures for ratifying the accession agreements, those provisions of the Convention which relate to trade will be implemented from 1 May 1977.

The Community has also asked the Commission and the European Investment Bank to start immediately on the preparatory work required to give full effect to the financial provisions from the moment accession becomes effective.

In the speeches which they made at the signing of the Accession Agreements the representatives of the three new states emphasized the importance which they attach to belonging to the ACP group and stressed the hope which they place, for the development of their countries, in co-operation with the Community through the Lomé Convention.

The representatives of the Community expressed the wish that ratification could take place in the shortest possible time.



(from the top) Cape Verde, Papua New Guinea and Sao Tomé and Príncipe

WORLD BANK

During a recent visit to Europe Robert McNamara, President of the World Bank, visited Brussels where he had discussions with Commission President, Roy Jenkins, and with the people in the European Commission in charge of development, finance and industrial affairs, commissioners Cheysson, Ortoli and Davignon. This was Mr McNamara's first official visit to the Commission. He talked of his plan to virtually double IBRD capital (currently \$US39 000 million) to cope with the increasing responsibility it is expected to have in the development sector. This extra capital should also enable the Bank to give more effective indirect help to private banking in this sector.

The Commission came out in favour of the World Bank playing a greater part. The possible creation of an oil facility (something like \$US14 000 million) was also mentioned.

Mr McNamara and the European officials also discussed the North-South dialogue, paying particular attention to Mr McNamara's idea of setting up a commission of independent personalities with Willy Brandt in the chair (he has already agreed) to discuss development problems with representatives of the countries concerned.

Value of the EUA (on 24.4.77)

1 EUA = US\$ 1.1
1 EUA = £ 0.66
1 EUA = FF 5.6

FRUIT AND VEGETABLES

The European Community brings together from time to time the two sides involved in the sale of ACP tropical fruit and off-season vegetables in Europe. The ACP producers and the European importers meet within the context of a committee known as COLEACP (Liasion committee for ACP fruit and vegetables). Its aim is to increase the consumption in Europe of these products and to try and ensure that the ACP countries produce sufficient and regular quantities. A study is now being planned to clarify the problems faced by both importers and exporters with the full support of the European Commission. In February the

EEC's development commissioner Claude Cheysson confirmed to COLEACP's chairman, Mr Azoulay, that a study could be undertaken on the development of production and marketing of ACP tropical fruit and off-season vegetables. Mr Cheysson emphasised that "before embarking on any promotional activities for certain tropical fruits and off-season vegetables in the European market it was essential to make sure that the production of the ACP states justified such action, both from the point of view of quality and quantity. If a promotional campaign by COLEACP is to be effective it must first conduct a preliminary study to assess the possibilities of increasing production in certain ACP countries on the one hand, and of strengthening and publicising the promotional work of COLEACP, particularly in the case of new ACP countries, on the other."

The European Commission for its part is to provide part of the cost of COLEACP's study of producer problems, and part of the cost of preparing a series of promotional campaigns in the EEC countries.

The chairman of COLEACP outlined the field of study to be undertaken. At the outset it would be necessary to limit it to a number of countries which had the potential to produce in the short term, and to products whose commercial potential had already been established during earlier promotional campaigns.

The countries and products chosen are Ghana's avocados, mangos, pawpaws and yams, the Ivory Coast's avocados, mangos, pawpaws and passion fruit, Kenya's off-season vegetables and its mangos and avocados; mangos and off-season vegetables from Mali, Senegal's off-season vegetables, particularly green beans, peppers, aubergines, tomatoes, melons and asparagus, and also Upper Volta's off-season vegetables. Among the new ACP countries Jamaica and Trinidad and Tobago could also be included for citrus, particularly limes. This list is certainly not limited and could include eventually such countries as Chad, Cameroon and Madagascar and include their off-season vegetables, mangos, avocados and even lychees. The possibilities of producing on a large scale such vegetables as new potatoes and carrots in areas such as the Sahel, could also be investigated.

Because of the financial support for the study, it has been possible to recruit Mr Libert Bou, an expert in the field, who in the past has undertaken a number of delicate tasks for the French gov-

ernment; notably the transfer of the fruit and vegetable market from les Halles in Paris and the reform of agriculture in Corsica. Mr Bou's timetable takes him well into 1978:

May/June 1977: study of the West African producers, Cameroon, Ghana, Ivory Coast, Mali, Senegal and Upper Volta.

July/August 1977: a preliminary report on the countries visited.

September 1977: a study of the Caribbean ACP producers, Jamaica and Trinidad and Tobago.

November/December 1977 a study of the more southerly African ACP countries, Congo, Kenya, Madagascar, Mauritius and Tanzania.

January/February 1978: outline of the commercial promotion schemes.

March 1978: submission of the general report on the results of the study and preparation of the promotion for 1978.

April/May/June 1978: the first promotional campaign of a series planned for the European market gets underway.

Before leaving for Africa, Mr Bou attended a meeting of COLEACP in Brussels at the end of April organised by the development directorate of the European Commission. Importers from seven EEC countries were present. Senegal was also represented. Mr Bou will meet other ACP representatives on the spot when he undertakes his various studies of the production, marketing, transport and other problems that currently hinder the sale of ACP fruit and vegetables in the EEC.

Louis C.D. JOOS

CRUDE OIL

The monthly review "Europe-Outremer" has published in its last number a detailed study of world crude oil production in 1976, and in particular in Africa.

In 1976 according to the provisional figures given in "Petroleum Economist" world production almost got back to the record 1973 figure: 2 844 million tonnes against 2 951 million tonnes. The growth over 1975 was 7.6%. For Africa with some 9.3% of world production to its credit, the growth rate over 1975 was 13.8%, although the total was again just short of the record production figures of 1973 when the continent produced 278 million tonnes.

After Nigeria, the world's eighth largest producer with 101 million tonnes, "Europe-Outremer" lists Libya with 92 million tonnes, Algeria with 46 million tonnes and then in order, Gabon, Tunisia, the Congo, Zaire and Angola. Accord-

ing to the "Oil and Gas Journal", proven reserves at the beginning of 1977 were for the world as a whole 81 000 million tonnes, which amounts to 31 years production at 1975 levels. Most of these reserves are in the Middle East with Africa's share of 997 million tonnes representing 9.8% of total world reserves. Finally "Europe-Outremer" points out that Africa's refining capacity is still very low representing 2.1% of the world total.

DAKAR SUMMIT

Nineteen countries, together with a delegation from the French Territory of the Afars and Issas (TFAI) met in Dakar on 20 April for the 4th Franco-African Summit. Twelve countries were represented at the highest level by heads of state or government.

The countries involved were Benin, Burundi, Cape Verde, Central African Empire, Chad, the Comoros, France, Gabon, Guinea-Bissau, Ivory Coast, Mali, Mauritius, Niger, Rwanda, Senegal, Seychelles, Togo, Upper Volta and Zaire. Senegal's President, Leopold Senghor was elected chairman of the conference.

President Senghor: "strengthen our cooperation"

Arguing that Africa lived in times when its security, freedom and economic development were all threatened, President Senghor, in a speech to the heads of state, said that the conflict of ideologies in Africa, which were unadapted to African conditions, had allowed rival imperialisms to use the continent as a playground for their ambitions. "But it was not too late", he said "to try and stop such an evolution, which aimed at setting up in our continent in the atomic age ideological pawns to replace the commercial pawns of the colonial era. In such conditions "he said "it was natural and even more necessary that African leaders question their analyses of common problems and come together as often as possible to strengthen cooperation in the face of attempts to divide and weaken Africa".

President Senghor said he believed it was correct that such cooperation and joint action should be organised through existing friendly ties among countries already used to working together. H

thought that the present difficulties Africa faced "illustrated in a tragic way the contradictions and harsh realities of underdevelopment"

The "dynamic role of the EEC"

He looked for support, at a time when the North-South dialogue appeared to be narrowing its horizons, to France, and the dynamic role of the EEC, to get a common support fund off the ground for raw materials, for means of controlling markets at a global level and for the retention of the principal that the heavy debt burden suffered by the poorest countries should be lifted.

He underlined that these questions were of general interest, and not just the concern of the developing countries because of the need to "protect international trade which was seriously threatened throughout the world by the trend towards protectionism and towards inward-looking policies".

BANGLADESH

First meeting of the Joint Commission EEC-Bangladesh

The Joint Commission referred to in the commercial cooperation agreement between the EEC and Bangladesh was inaugurated in Brussels on 18th April 1977 by Viscount Davignon, the commissioner responsible for industrial affairs and the internal market, and Mr. Mohammad Saifur Rahman, the member of the Bangladesh Council of Advisors in charge of Commerce.

In his inaugural statement, Viscount Davignon pledged every effort on the part of the European Commission, assisted by individual EEC countries to increase and diversify trade with Bangladesh and contribute to its economic development. In reply, Mr. Rahman expressed the hope that the Joint Commission would not only play a constructive role in the field of trade cooperation, but would also prove a useful forum for discussing the wider problem of Bangladesh's development needs. In this context he drew attention to the recent sudden deterioration in the availability of foodstuffs in Bangladesh and expressed

the hope that the Community could help to alleviate the resultant difficulties. Viscount Davignon assured him that the Community would expedite delivery of food aid already allocated and would favourably consider allocating the additional supplies already provisionally reserved for Bangladesh in the 1977 programme.

Having adopted its rules of procedure, the members of the Joint Commission exchanged information on recent trade and economic developments in the Community and Bangladesh. It reviewed the functioning of the sectoral agreement between the two sides on trade in jute products and the trade promotion measures undertaken by the Commission on behalf of the exports of Bangladesh. It was agreed that the two sides should continue to study these questions at subcommission level.

Work will begin on identifying sectors in which there are prospects for mutually beneficial collaboration between the Community and Bangladesh and on defining the general guidelines to be followed in promoting such collaboration.

Two subcommissions were set up to examine respectively questions arising from the sectoral agreements and the general preparation of the second session of the Joint Commission, which will be held in Dacca early in 1978, and to which the subcommissions will report.

LEBANON

The following extracts are from a speech by the EEC's development commissioner, Claude Cheysson at the signing of a cooperation agreement with Lebanon:

When our agreements with Egypt, Jordan and Syria were signed on 18 January, Lebanon was in our thoughts, since it alone was missing from our overall structure. That gap has now been filled. Europe will be linked to Lebanon by a comprehensive preferential cooperation agreement of unlimited duration.

The ties that are being created between Europe and the countries of Africa and the Southern Mediterranean reflect a wholly original and very bold policy. Fifty-two ACP countries are active partners in the Lomé Convention. Half of the Arab League countries, embracing three quarters of the Arab peoples (110 million out of a total of 140 million), are walking alongside Europe in a develop-

ment process which we undertake to sustain by every available means of co-operation. The Euro-Arab Dialogue will provide the framework for our endeavours at a more general level. The links between us are based on respect for peoples, their individual identities and the particular forms of organization, government and policy which they choose to adopt, Mr Cheysson said.

With the signature of the agreement with Lebanon the Community has reached the limits of this policy, and these are limits that will not be exceeded.

Emergency aid

The Community has launched an exceptional operation involving the supply of food products and emergency aid worth nearly LL 50 million, and it will keep up this effort. I have no doubt, moreover, that the determination of the governments of our member states and of the Community to participate in the reconstruction of the Lebanon must be the subject of careful discussions as soon as we are approached on this by your Government. Lebanon is particularly well-equipped for making intelligent, ingenious and full use of the facilities offered by our Agreement, I am thinking of its outstanding performance in commerce, in financial management, in the development of trade and in the interplay of men, business and enterprise.

Arab funds

A few days ago I was in Kuwait to thank the Arab Funds for the cooperation which has developed between us in providing development aid for the African countries covered by the Lomé Convention, and I found that in one year we had cooperated in financing contracts concerning projects worth \$1 300 million with the help of other sources of aid, and were examining other projects worth a further \$1 800 million. I welcome this triangular cooperation which has brought together the knowhow, the market and the finance of Europe, the generosity and considerable resources of your friends in the oilproducing countries and the determination to develop the talent and the capacity for work of the Africans. If we transpose this to the Maghreb and Mashreq countries, and to Lebanon in particular, we can see that the financial aspect of our agreement offers substantial prospects for the future since it is tied in with the rest of the agreement and is inspired by our common resolve, Mr Cheysson said.

List of delegates of the European Commission in ACP countries

<p>Of 52 ACP countries 3 do not yet have delegates at the time of going to press. They are Cape Verde, Papua New Guinea and Sao Tomé and Príncipe all of which have just signed the Lomé Convention.</p>	<p>GHANA HAFFNER Benno P.O. Box 9505 Kotoka airport Accra Tel. 28 138</p>	<p>NIGERIA GARVEY Tom</p>
<p>BARBADOS KELLY Stephen Graham P.O. Box 654C Bridgetown Tel. 74362</p>	<p>GUINEA VANHAEVERBEKE André P.O. Box 730 Conakry</p>	<p>RWANDA DÜNKELSBÜHLER Gaspard B.P. 515 Kigali Tel. 5586, 5589</p>
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The pink flamingos of Lake Nakuru are one of Kenya's famous tourist attractions

operative development, Mr Peter Mugai Kenyatta, who has visited the Arab countries several times. We do feel very strongly that our Arab brothers, some of whom are also fellow members of the Organisation of African Unity, should set a shining example of how they could lighten the burden caused by the increase in oil prices. I think it is only fair to say that up to now the mechanisms considered or proposed have not been very satisfactory to the African countries. And that is why the African countries were very happy that the Cairo conference was arranged(*). Kenya is going to open an embassy in Saudi Arabia and already has an embassy in Cairo. We want to increase our diplomatic relations with them.

▶ *Apart from conferences such as UNC-TAD and UNESCO, Nairobi also houses the permanent office of the UN Environment Programme, the only major UN body based in a developing country and ACP state. What do these international gatherings and the presence of UNEP mean for Kenya?*

— I must say that we are delighted to be the host of UNEP and also to be the host of many international conferences. It has first of all encouraged us to proceed with our approach of democracy and stability, because if we had no stability we would not have been accepted as a host of such a major organization. Secondly, there is also a great advantage in terms of the foreign exchange that comes here as a result of UNEP or through the holding of international conferences. It even helps to

boost our tourist industry, which is vital to us. When people come for conferences and they get to know Kenya, then later when they think of going on a tour as tourists, they remember our country. And lastly, it also contributes to the struggle against unemployment. A lot of subordinate staff jobs are offered to our people. But perhaps most important, it underlines the importance of Kenya being an outward-looking country, an internationally-minded country, a country that must play its part in the international community positively. We are therefore very active members of the United Nations system as a whole. We also like to think that Kenya is not just passive, but a very positive force in such forums which promote international peace and better international relations. □

Interview by R.D.B.

(*) The Arab countries provided 1500 dollars for Africa at this conference under different conditions.

ETHIOPIA

The economy after three years of revolution

Ethiopian finance minister Teferra Wolde-Semait outlined his country's economic situation to the "Courier" during his visit to Brussels on 23-25 March. Mr Wolde-Semait, 38, is no stranger to Europe, as he studied economics in the Netherlands.

A new institutional structure for development

The government's moves to meet basic national requirements had put the Ethiopian economy on the right track,

Mr Wolde-Semait said. "Although our resources are not yet adequate to meet all our needs, our level of development is pretty satisfactory in view of the various international problems, such as inflation, which affect us", he said.

These moves basically consist of creating new institutions to speed up economic growth. "Without this institutional basis for development, it is still too soon to draw up specific objectives. Nonetheless, a good many projects and programmes have been prepared, some are already being carried out, and at a later stage we will be able to consider

full-scale economic planning", the minister said.

"This is one of the main results of the land reforms. Meanwhile, the restructuring is going ahead, and the state farms, for instance, support and complete this action", he added.

Rural cooperatives and agricultural reform

Agriculture is the basis of the Ethiopian economy, providing a living for 95% of the population of 27 million and bringing in over half the GNP. Priority has naturally been given to the new institutions in this sector and the government aims to establish organisations that will allow peasant farmers to shape their own future and improve their standard of living by their own efforts.

Raising the level of farm production and providing the requisite infrastructure are the objectives here. Rural health and training services are planned and new roads should help the farmers to get their goods to market.

A particular feature in agricultural development is the start that the government has made on land reform. The new system is to allow each family 10 hectares of farm land, and it is "already showing positive results", Mr Wolde-Semait said. "Centuries of exploitation have been ended in this way. The peasants now own their land and they have an incentive to grow more and to look after their own interests. This has also affected their level of consumption—a peasant owning his own means of production naturally wants to raise his standard of living, whereas he always went hungry before.

"We still can't pretend that an adequate surplus has been reached, but there are good indications that the traditional farm sector is showing signs of growth.

"These high prices must be maintained, but, like all the developing countries, we don't have enough control over the trends in price fixing for our export products. It's an unfair situation and it will require considerable solidarity among the developing countries, and the ACP group in particular, to fight it.



Development commissioner Claude Cheysson and Ato Teferra Wolde-Semait signing the financing agreement to improve coffee growing in Ethiopia. On the right is André Auclert, director of the financial and administrative unit of the EEC's development directorate



Ethiopian farmers are introduced to the use of fertilizers

Moreover, we have no control over the prices of products imported from the industrialized countries. The Lomé Convention could serve as an example in a new world economic order, by showing that there does exist a spark of the political will needed if relations between the developing and the industrialized countries are to be fairer", Mr Wolde-Semait said.

Coffee and cattle

The objective in agriculture is not only to reach self-sufficiency in foodstuffs but also to step up exports, mainly coffee, beans, vegetable oils and hides and skins.

Ethiopia is one of the biggest African stock-raising countries, with some 27 million head of cattle—about the same figure as the population. Various projects are being carried out to improve quality, production and marketing in this sector.

Coffee has suffered in recent years,

largely because of repeated droughts, and its rating in the export tables has fallen. The current record coffee prices, however, make this crop of considerable interest and the finance minister called the prices "very encouraging".

Lomé: "unique, but not perfect"

Ethiopia has been marked down for one of the biggest chunks of EEC aid under the indicative programmes for the ACP countries, and under Stabex Ethiopia has already received a 14.4 m EUA transfer for coffee and hides and skins. Under a financing agreement signed on 25 March (see photo opposite), Ethiopia will get 12.87 m EUA for a coffee improvement plan. The indicative programme represents "an important financial source for meeting Ethiopia's development requirements", and with the coffee plan off the ground, "a start has been made on financing a whole list of

projects and Ethiopia has begun to benefit from the EDF, one of the main aspects of the Convention", the minister said.

Mr Wolde-Semait described the Lomé Convention as "unique, but not perfect... It is the first action of its kind to be put into practice in international development policy and it has some very concrete provisions.

"There is still room for improvement—for instance, Stabex could cover more products and more countries, especially among the least developed. But it is still too early to really get down to discussing improvements and in any case the ACP group will have to decide on the priorities at that stage".

Mr Wolde-Semait was one of the participants in a discussion group on ACP-EEC relations which brought ACP leaders together two years ago. He said he was proud of having been able to put the theories of that time into practice "in the spirit of the Lomé Convention". □

R.D.B.

FIJI**The Community's most distant partner**

The Lomé Convention has allowed European development aid to bridge the Mediterranean to cross the Atlantic, and, by the inclusion of the Pacific islands, to reach around the world. In April the EEC-ACP Council of Ministers met in Fiji. Satya Nandan, Fiji's ambassador in Brussels, gave the "Courier" this description of his country.

— Fiji is situated in mid-South Pacific, and is often referred to as the crossroads of the South Pacific. It lies across the 180° meridian and between latitudes 15° and 22° south of the Equator.

Fiji consists of over 300 islands of which only about 100 are inhabited. The total land area is 7 055 square miles, with the largest of the islands, Virilevu, constituting over a half.

The climate is tropical. Because of the prevailing south-east trade winds, and the situation of north-south mountain range on the largest island, there is a marked eastern wet zone and western dry zone on the island. Fiji is a frequent victim of hurricanes.

Government and people

Fiji is an independent sovereign state with a government based on parliamentary democracy and a constitution which safeguards the fundamental rights and freedoms of the individual. It is a member of the Commonwealth and the United Nations. Fiji became independent on October 10, 1970, 96 years to the day after the voluntary cession of the islands to the British. Independence came with mutual agreement and understanding between Fiji and Britain.

The Fijians derive from three historic migrations, the Melanesian, Polynesian and Micronesian, and the present indigenous population is primarily a mixture of the first two. Legend has it that the ori-

ginal Fijians came from across the seas, and most authorities agree that the people came into the Pacific from south-east Asia via what is now Indonesia.

Traders, settlers, and missionaries came to Fiji in the 19th century. After cession, large numbers of people were brought as indentured labourers to work on sugar plantations and stayed to become farmers, wage earners and business people.

Fiji today has a multiracial population of about 585 000, of which 44% are Fijians, 51% Indians, and others made up of Europeans, Chinese and other Pacific Islanders.

Suva city, with a population of over 60 000, is the capital and chief administrative, educational, commercial, shipping, economic, social and cultural centre of Fiji.

The most commonly spoken languages are Fijian, Hindi, and English, the latter being the official language for government, commerce and education.

Character and constitution

► *The Pacific islands seem to have preserved much of their traditional character, including their social system. Who runs Fiji and how does the political structure work?*

— It is true that the Pacific islands have preserved much of their traditional character. In the case of Fiji this was primarily due to two things: a highly stratified social structure, with its associated norms, governing social inter-relationships within the system; and the setting up after World War II of a system of Fijian administration. Today this has become the Ministry of Fijian Affairs and Rural Development, which actively encourages the preservation of important social and traditional customs.

Because of Fiji's multiracial population, we have a crossing of many cultures. Besides the traditional Fijian customs and traditions, there are in addition the Indian, English, Chinese, and other Pacific island cultures.

Her Majesty Queen Elizabeth II is Fiji's head of state and her representative in Fiji is the Governor-General, Ratu Sir George Cakobau. Except for certain constitutional functions, he is required to act in accordance with the advice of government ministers.

Fiji has an elected House of Representative (Lower House) consisting of 52 members and an appointed Senate (Upper House) with 22 members, giving Fiji a total Parliament of 74 members.

The Great Council of Chiefs, a body which is the present day extension of the traditional Fijian hierarchy, appoints eight senators, the Prime Minister appoints seven, the Leader of the Opposition six, and the Council of Rotuma—an island 400 miles north of Suva—one.

The Senate's general function is to review legislation from the Lower House and it has one particularly important power as far as the Fijian people are concerned—it has the final say on matters involving their land.

The first general election since independence took place in April 1972 when the Alliance Party was returned to power with a majority of 14 seats in the House of Representatives. The head of government since independence has been Ratu Sir Kamisese Mara.

Fiji has an independent judiciary headed by the Chief Justice and there is a Director of Public Prosecution. In addition there is an Ombudsman.

The principal aim of the electoral system adopted by the 1970 constitutional conference is to ensure the representation of all the constituent communities in our multiracial society. Voting is through a system of national and communal rolls, which means that people of each race can vote for people of other races as well as their own. The system ensures the return of 22 Fijian representatives, 22 Indian representatives, and eight representatives of other races (Chinese, European, etc.) grouped as General Electors.

The economy

► *Sugar and tourism are the mainstays of the Fijian economy. Last year sugar revenues were down some 25% on 1975—why was this, and what might be done to bring sugar production up again?*



J.L. Debatre CEE

Satya Nandan (left), Fijian ambassador to Brussels, with the Prime Minister, Ratu Sir Kamisese Mara, during the EEC-ACP Council of Ministers in Brussels last October

— Sugar revenue last year was down by about 25% over 1975 figures because of a shift from the special price of sugar offered by the United Kingdom in 1975 to the EEC guaranteed price which was lower by about \$60.00 per ton.

Although sugar revenue for last year was lower than in 1975, actual production, at 291 000 tons, was up by some 23 000 tons of raw sugar. Furthermore, production this year is expected to be higher by some 15 000 tons than last year's total. It is hoped that total production by 1980 will reach 400 000 tons, which is our present milling capacity.

Increase in total acreages under cultivation, improvement in management of farms and in the care of sugar cane, introduction and encouragement of better species of cane, and better control of pests and diseases are among the major measures being taken to ensure better and greater production of sugar.

▶ *Although Fiji is a major sugar producer, you have no sugar refineries. Wouldn't it be good idea to build one?*

— Sugar refineries are expensive to set up initially and involve mainly foreign exchange costs. Refined sugar is far more difficult to handle than raw sugar, mainly because of its greater hygroscopic properties. It is not used locally to any significant extent and would be more expensive to transport overseas because of handling difficulties.

— Considering the limited local availability of technical skills, the quantity of su-

gar produced in Fiji, refining costs and transport difficulties, the difference in foreign exchange earnings between raw and refined sugar is not expected to be enough to justify the large investment which would be necessary.

▶ *Tourism is clearly a flourishing business in Fiji, although it still doesn't compensate for the negative balance of payments. But mass tourism is a phenomenon associated with the industrial countries and it sometimes causes friction on coming into contact with an agricultural society. To what extent does Fiji count on tourism as a real basis of its future development?*

— During the five years up to 1973, tourism in Fiji grew at an average rate of 20% per annum, although since that date the rate of growth has slumped to zero with the international economic recession. Over the same period gross receipts from tourism increased from \$20.6 million in 1969 to \$49.2 million in 1973. While foreign exchange earnings from tourism to help to ease the adverse balance payments, they would help more if tourism was not heavily import oriented. The government is therefore taking the necessary measures to reduce the import content by ensuring that more local products are substituted for imported ones.

It is also the stated objective of the government to ensure that the growth of tourism does not infringe upon other sectors of the economy or upon the social system. While assistance is being given to promote the growth of tourism

it is not to be done at the cost of development in other sectors of the economy.

It is important that the economy of an independent country should not be dependent on one or two industries but be diversified as possible. Fiji, since independence, has increased efforts to diversify her economy, but is hampered in this by limited natural resources. Tourism has had a phenomenal growth, but it is a fragile industry highly affected by the world economic situation and the government does not believe that it should be too heavily depended on as the basis of our economic growth.

Nevertheless, at the present time tourism does generate a substantial amount of employment in Fiji, both through its direct effects (hotels, restaurants, guided tours, etc.) and through indirect effects (supply of other services, additional agricultural production, etc.). Employment in hotels and restaurants, for example, was 3 022 in 1975, or 5.1% of the entire wage and salaried labour force. If indirect effects are included, a somewhat larger number of people could be said to be at least partly dependent on tourism.

▶ *How might the economy be diversified in other ways?*

— Fiji appreciates the danger associated with concentrating one's effort on a single commodity for its economy. For some time, Fiji's economy relied heavily on sugar and copra. Today, tourism is a major industry. Manufacturing industries have been encouraged through assistance given in the form of tax concessions, tax holidays, welcoming of foreign investments—especially those offering local participation—offering export incentives and the establishment of infrastructure in a number of areas specifically earmarked for industrial development by the government.

On the agricultural side, financial assistance in the form of loans, assistance in acquiring land and extension services from the Agriculture Department, with advice on suitable crops, have added to the growth of diversification. Ginger has become one of our major exports, and root crops such as taro and yams have joined the export market within the Pacific region.

At the same time there has been an increase in import substitution efforts. It

is expected that crops such as sorghum, for animal feed, and rice, and livestock such as beef cattle, pigs, and poultry will grow so that Fiji's reliance on imports of these commodities will decrease.

Lomé: a positive experience

► *During the negotiations for the Lomé Convention, Fiji expressed a few reservations. Looking back over two years, do you think the Convention was worth joining? Stabex and the sugar protocol were probably of particular interest to Fiji—have these proved satisfactory?*

— Like many other developing countries in the ACP group, Fiji had a few reservations during the Lomé Convention negotiations. Today, on looking back, Fiji feels satisfied about the step it took in joining the Convention.

The Stabex scheme has made it possible to stabilize the price of copra within Fiji at a level which makes it possible to give the producers a reasonable level of profit.

The sugar protocol has afforded assured access and fair prices to the Fiji sugar industry. That is important to us not only because the industry is the biggest source of income for the largest number of people in Fiji but also because we sell more than half our sugar to Europe.

Both with sugar and copra, stabilization of price has undoubtedly helped to keep the employment in these industries high, thus keeping the economic benefits distributed as widely as possible. As our PM said at the UN General Assembly, the Lomé Convention is a beginning. It is our task now to improve and expand it to mutual advantage of both the European Economic Community and the ACP countries.

► *Fiji belonged to the Commonwealth Sugar Agreement and now belongs to the Lomé sugar protocol. The developing countries in general want commodity deals of this kind, as they give some stability to production and employment planning apart from anything else; but in the long term do you think the protection offered by this sort of arrangement is always going to be worth the commitment it imposes on the producers?*

— The Commonwealth Sugar Agreement came to an end in 1974 as the result of the United Kingdom joining the EEC and the Lomé sugar protocol has replaced it. The quantity of Fiji sugar involved in the Lomé sugar protocol is slightly higher than that in the Commonwealth Sugar Agreement.

It is felt that commodity arrangements of this kind are a must as far as developing countries are concerned, especially among those whose economies depend heavily on a handful of primary agricultural products which are subject to wide international price fluctuations. Commitments to produce the agreed amount of commodities are insured against natural disasters and also are protected by a minimum supply price. It seems that the advantages to be gained by developing countries are well worth the commitments involved.

► *The next ACP-EEC Council of Ministers is to be held in Suva in April after being put off for administrative reasons. How important does the Fiji government feel this meeting is in the international context?*

— Holding the ACP-EEC meeting here will naturally give our own people some idea of the magnitude of ACP-EEC association and an appreciation of the importance of the work which the Fiji delegation, led by our Prime Minister, did when they negotiated Fiji's entry into the Lomé Convention. Equally, the hosting of the Council meeting by Fiji is a demonstration of the importance we attach to our association with the European Communities through the Lomé Convention and also Fiji's association with the ACP countries.

The holding of the meeting here would give the members of the ACP-EEC delegations an opportunity to see the life in the Pacific. It will be the first time that Europe, Africa and the Caribbean will come together in large numbers to visit our part of the world. And we look forward to receiving and welcoming them.

It is hoped that the delegations would be given an opportunity to see something of the culture and social customs of the region, which characterize the "Pacific way of life". □

Interview by
L.P.

Three of the many items of international news over the last few months have been of particular importance: the fantastic rise in coffee prices and their repercussions, America's new-found desire to ally politics and ethics and the Cairo conference of Arab and African leaders on Afro-Arab cooperation.

These seemingly unrelated events have one thing in common—they all cast doubt on a particular idea of economics and politics, which has always been based on a consensus of public opinion, regardless of whether that consensus was the most opportune.

Take coffee first. The soaring prices of this important product in the industrialized countries took the buyers by surprise. Coffee prices broke all records—upwards of £4 000 per tonne in London and more than that in New York. In the EEC countries, prices also soared. In France, for example, coffee increased by 100% in two years, going from FF 3.65 per 250 grammes in early 1975 to more than FF 7.30 in January 1977. The reasons for this are given as bad weather (frost and earthquakes in Latin America) and economic and political situations (falling production in some countries of Africa and the Angolan war of independence). But the main cause of the rise in coffee prices was international speculation. And the most striking thing about it was consumer reaction. A boycott by the powerful American consumer lobby slowed down rising prices but did not stop them altogether. A similar reaction in Europe, whereby people were encouraged to cut consumption and use substitute products, was less successful in holding prices back. And the panic was not

Three key issues

By LUCIEN PAGNI



just confined to the markets. People panicked. It was like the 1973 petrol crisis all over again.

America was the scene of the other big event of early 1977, when Jimmy Carter took over the presidency of the most powerful country in the world. President Carter has some fascinating ideas. It is not so much the fact that he is an intellectual turned peanut planter, which is not in itself surprising, but that he has caused astonishment with his new ethical approach to politics and international relations. In the US, where money has always seemed to be the deciding factor in business methods, the recourse to moral values that President Carter advocates might well have favourable repercussions on international relations. Seen from the point of view of the ACP countries and Africa in particular, this new American approach is important. Let us have no illusions—one man alone, even Car-

ter, cannot change America. But the current attitude of the American President can help with the search for acceptable solutions to the urgent questions of African and international affairs. Southern Africa and human rights are a telling test. And the North-South dialogue on economic cooperation should get off to a fresh start with this new spirit in the USA.

The third big issue of the last few months has been the meeting of African and Arab leaders in Cairo (Egypt) on 7 and 8 March 1977. This is the first time that heads of state and government from the African and Arab world have met to discuss Afro-Arab economic cooperation. This conference was aimed at defining how aid from Arab oil-producing countries can help the development of independent states of Africa south of the Sahara and at forging the first link in a new relationship between Africa and the Arab countries. Hitherto, the links between the two have been primarily religious or based on other, more or less ideological, considerations, but the aim at Cairo was to extend these links on more solid foundations. The Africans asked for some \$2 200 million over five years. The Arabs thought this was an "exaggerated" request, in spite of the fact that it would almost all be in the form of loans. However, this aid would appear to be a useful means of recycling petrodollars, as well as helping the recipient African

countries to diversify their sources of financing, and of strengthening Afro-Arab solidarity. The announcement at the end of the conference that Saudi Arabia was making a million dollar "grant" to black Africa, plus the Arab support for African liberation movements, confirmed that a new state of mind has emerged in Afro-Arab affairs.

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And the final analysis? The soaring coffee prices and the ensuing sharp reactions from the economic operators, who were ready to reduce consumption or cut it out altogether, show that the reorganization of international trade is a matter of increasing urgency. We may ask how far rising coffee prices are due to the producing countries and whether poor plantation workers in Africa and Brazil are really getting any extra income from the rise. Although the commodity producers need to import some products from the industrialized world and therefore cannot—or will not—copy the coffee and oil consumers and opt for a substitute product (which is, admittedly, often difficult), the fact remains that the industrialized countries' supply of primary products could well be in difficulties if the present unfair system of trading persists.

The new ethical approach to international relations, Carter-style, the first positive step towards true Afro-Arab cooperation and, of course, the development and improvement of Lomé policy and the strengthening of inter-ACP relations may be major contributions to the recasting of this international order. □

L.P.

MAURITIUS

The tourists go marching in

by Régis FANCHETTE (*)

Tourist arrivals in Mauritius have gone up fourfold since 1968, when there were only 15 553.

However, although Mauritius's tourist trade has come of age and is ticking over normally, the potential of this island in the Indian Ocean as a holiday high-spot still needs to be fully exploited. Even if four times 1975's 74 000 tourists were to come over the next decade, the local population of some 850 000 would not be materially affected. Their traditional way of life and the beauty of the island itself would remain intact.

Tourists over the last six years have stayed an average 10-12 days. Although this is a good figure for such a small island, it could be improved. If the average number of nights spent in hotels by tourists elsewhere is compared with the population of those countries, the following figures emerge:

United Kingdom	1.72
Spain	1.56
Italy	1.27
Jamaica	1.21

The figure for Mauritius is only 0.3. It is also worth mentioning that the island has only 61.1 tourists persquare mile, as compared to 942.2 in Barbados, 318.9 in the Bahamas, 326.6 in Hawaii and—even more telling—534.6 in Martinique. Clearly there is still room for the Mauritian tourist trade to expand. And, with an average stay of 10-12 nights, it is the British visitor with an average 16, who is leading the way. It is therefore obvious that an island of 1 840 km² should be able to attract holidaymakers now and hold their interest for some time to come.

(*) Mauritian director-general of travel.

The visible influx of foreign currency over the last seven years has also gone up more than 400%. The most recent estimates put it at 80 m Mauritius rupees—US \$15 000 000—in 1974. This is 50 times more than the allocations for the Tourist Board's operating and development budgets—although the cost of infrastructure for hotel projects, particularly the supply of services such as access roads, water and electricity are not included.

Tourist arrivals went up by an average of 30% per year between 1970 and 1973 and 1973 itself was particularly spectacular, with a growth rate of 40%—however the figure dropped to only 6% in 1974, a year of world-wide crisis in the tourist trade. Mauritius's policy has thus proved itself and, over the coming years, the tourist industry may well become the second most important after sugar, which will always be the backbone of the country's economy as



Sea, sun and fine sandy beaches

far as foreign currency earnings are concerned.

Hotel building

At the moment, there are about 30 hotels and a total of 3 000 beds available, of which 2 100 are in luxury hotels. Six international class hotels, including two five-star, are being or soon will be built on the beach. These brought the number of beds up to 4 245 in 1975. Some of the hotels already under construction were planned with the help of well known international investors such as Investeco (UK). This group planned the Pirogue Hotel, in a novel design which fits in with the local scenery. The Southern Sun group (South Africa), helped by the Mauritian group Ireland/Blyth, the majority shareholder, will be constructing the St Géran, a more typical hotel on the east coast at Belle Mare. The Club Méditerranée holiday complex in the north-west of the island at Pointe aux Cannoniers has been in operation for several years now.

If the number of tourist nights spent in Mauritius in 1973, something like 700 000 in all, is taken as an example, hotels were, on average, 74% full and the minimum percentage needed to make a profit is 50%. Tourist policy is, therefore, aimed at reaching a maximum number of nights spent rather than a maximum number of tourists. On such a small island, everything can easily be upset if too many foreign visitors arrive too quickly and cause the sort of socio-political problems that occurred in the West Indies.

Investment incentives

Special facilities, such as tax concessions when a new project is begun and the lifting of customs duties on equipment, are provided by the government for foreigners wishing to invest in industry, particularly in the free export zone. Such concessions also apply to the construction and running of hotels. At the same time, local participation in both capital and shares and by private interests and/or the official Mauritian Development Bank, is strongly encouraged

because it creates a climate of confidence for foreign investors and provides local authorities with the assurance that these enterprises will be of real benefit to the country.

Air routes and communications

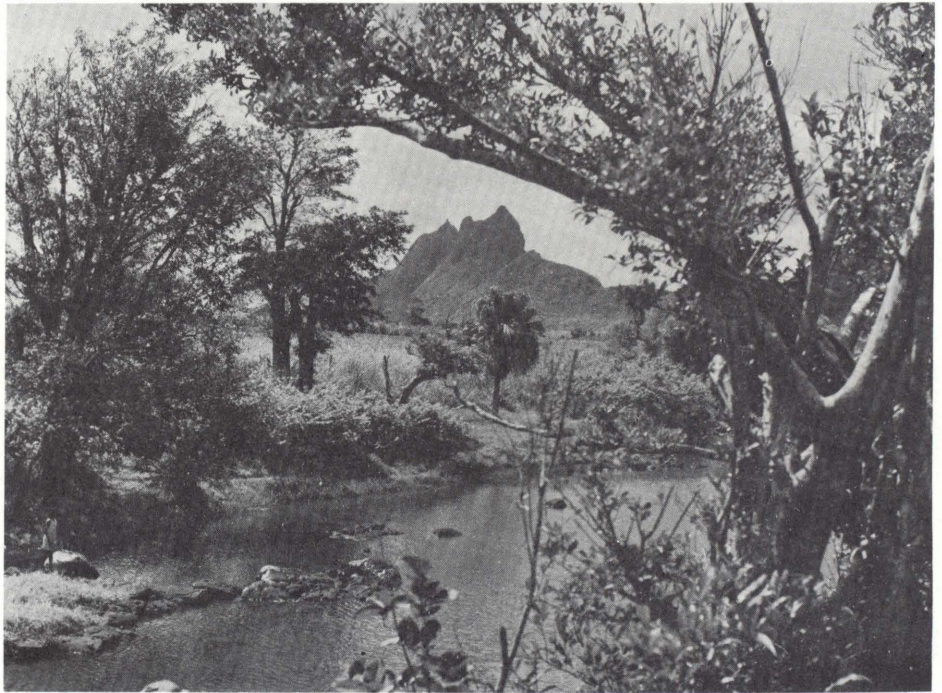
The Plaisance airport, in the south-east, has been extended and improved to bring it up to the standard of the other modern airports in this part of the world. The terminal has also been improved to take Boeing 747s which Air France started by operating three times a week in addition to its flights by Boeing 707. Plaisance is served by 10 major airlines which lay on flights once, twice or three times a week or, as in the case of Air France, once a day plus additional flights at peak periods. Flights, including charters from the United Kingdom and Belgium, increased from 1 054 in 1972 to 1 490 in 1973. A new airport is due to be built in the north over the next five years to handle the daily jumbo jet flights run by the various international airlines.

The road network is due to be extended beyond the existing 1000 km of good macadam roads to include a new major highway between the airport in the north and Port Louis, and a road to the top of Signal Mountain in the capital, which used to be the country's look-out post. Other tourist roads are also planned.

Air Mauritius, the national air line, runs a weekly round trip by VC 10 to London via Nairobi and Algiers, in conjunction with British Airways. Services are to be extended with the introduction of the Boeing 727, which will fly the Johannesburg-Durban-Mauritius run. Air Mauritius also runs flights in conjunction with Air France and Air India and has regular services to Reunion and Rodriguez.

Airline prices

The big holiday tour operators—Kuoni/Houlders World Holidays and Martlet Travel, Maine/Montparnasse, Passeport Travel and so on—now offer low-cost package holidays, from Britain and France, on a demi-pension basis in the best hotels on the Mauritian coast.



Despite its small size, the island has room for a great variety of landscapes

But even so, airline prices for countries south of the equator are far too high for Mauritius to be able to profit from the tourist traffic from southern and eastern Africa to Australia and the Far East. The tourist trade in the developing countries of the southern hemisphere—with the exception of south-east Asia where there are promotional rates on south-bound travel—is handicapped by anomalies in the IATA rates, which unjustly favour the developed countries. At the moment, the government, via Air Mauritius, is negotiating with Qantas, the Australian national airline, on the introduction of an Australia/Mauritius promotional ticket, to increase tourist traffic to Mauritius from Australia.

The future

Success is not just a question of numbers. The quality of the holiday and the services provided for the visitor are the keys to a sound, expanding tourist industry. The government launched a school of catering over four years ago and there is constant pressure to maintain and raise the standard of catering, services and various other facilities provided.

New markets in Europe, America, Africa and the Far East are about to open

and bring new visitors to Mauritius. By expanding the market, it will be possible to even out the influx of visitors and avoid any seasonal ups and downs.

In the midst of the worldcrisis and the inflation brought about the soaring costs of energy, Mauritius offers a warm climate and smiling hospitality and everything that goes to make holidays restful, delightful and exotic. The island was praised by Bernardin de St Pierre and Baudelaire and its vital statistics would be the envy of any aspiring beauty queen. It can give you a real holiday away from skyscrapers, lifts, concrete boxes and claustrophobia.

Throughout 1976 our prospects remained, in spite of the rigours of hurricane Gervaise and the general economic climate. After several months of uncertainty, the country got back on its feet.

The ASATA congress took place in October 1975. This was a splendid combination of effort by public and private concerns in all sectors. It returned confidence to local industry and gave an excellent impression of quality to both South African travel agents and observers from Europe, Asia and America. We marked up some important points for the future at this congress. That is undeniable. □ R.F.

Awash River valley (Ethiopia)



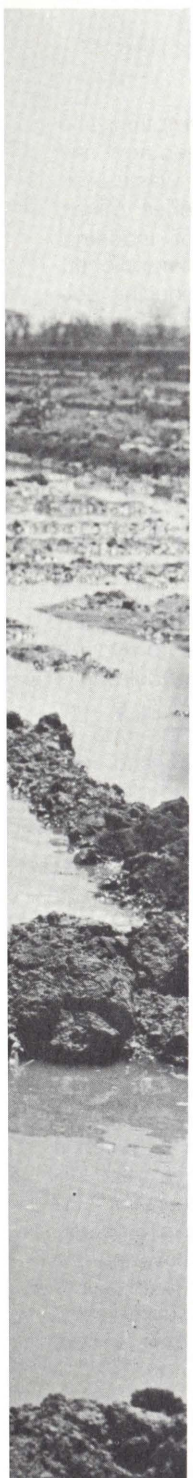
Water and rural development

Water is as vital to man's survival as the air he breathes. He needs it not only for himself, but for the crops and animals on which he depends for food. Although our planet has an abundance of water, about 1 500 million square kilometres in total, only about 3% of this is fresh water and suitable for man's needs. For the majority of mankind the supply of fresh water for drinking, washing, crops and domestic animals is an almost daily problem. In the rural areas of the developing countries, where most of the world's population lives, the problems of water supply are particularly acute. In such areas people depend on natural supplies from rivers, lakes and rainfall, occasionally supplemented by wells. In a few areas natural supplies have been improved by dams and modern water conservation techniques, but in general developing countries are a long way from having the infrastructure which in normal conditions provides practically every home in the developed world with fresh water, farms with the irrigation they need, and industries with water for their production.

In the developing countries water itself can be a source of danger. It carries diseases and is easily contaminated by poor human waste disposal methods, and, as the frontiers of industrial society expand, by other man-made pollutants. Waterborne diseases can debilitate whole populations,

bringing misery and sapping man's productive energy. The daily carrying of water, usually by women and often for miles, which is a feature of life in many developing societies, also represents an enormous waste of human manpower. Natural catastrophies, such as the great drought in the African Sahel, add to the normal problems of supply and can threaten the economic life of whole regions. Adequate supplies of food to feed the world's growing population cannot be provided without water for agriculture.

So crucial is the supply of water to man that it is surprising that only in 1976 did the international community set itself, as a matter of urgency, the target of providing water for all. The Habitat Conference chose the target date of 1990, and in March this year, at Mar del Plata in Argentina, the United Nations Water Conference was held to work out ways of reaching the Habitat target. One of its main aims was to increase awareness of water problems and the central role water plays in development, especially in the rural areas. There is little doubt that if the Habitat target were met and sustained, it would bring a significant and rapid improvement in the quality of life of that 80% of the world's rural population which at present lives without adequate or safe supplies of water.



FAO photo

Water, its role in rural development

by Maurice J. WILLIAMS (*)

Development is increasingly concerned with meeting the basic needs of the world's expanding population. This concern arises from widespread humanist values that "man is the measure of all things," that development is for the betterment of people. Also, there is better understanding that a pre-condition for stabilizing world population growth is attainment of decent standards of life in developing countries, particularly for the most basic of human needs: food and health.

Water for food and health

Policies for water are at the core of programmes for rural development. In many areas water is an important limiting factor in expanding food production. Provision of timely and adequate supplies of water, accompanied by improved farming practices, could result in dramatic increases in food yields. For example, a recent Japanese study suggests that more water in the right places and its better management could double rice production in Asia over the next fifteen years.

Safe drinking water and environmental sanitation programmes are important for improvement of health. Over a third of the people in developing countries are forced to rely on contaminated water for drinking. Within these populations waterborne diseases are chronic and pollution of water is a common cause of early death. Safe drinking water, improved sanitation and adequate food would greatly improve health and reduce death rates, especially among young children—opening prospects for a better life for poor people throughout the world and conditioning their decisions on family size.

The need for policies of improved water management is not restricted to rural areas in developing countries. Industrial



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countries have vastly increased their water consumption, and most anticipate a doubling of water demand between now and the end of the century. Excessive reliance on the waste-assimilative characteristics of water—by cities, factories, mines, power plants and in the use of byproducts of industrial life—have brought adverse environmental and economic effects. There is urgent need to adopt means for reducing pollution pressures on natural streams and water bodies from industrial use and disposal of waste, and to devise policies for apportioning the cost and benefits.

These were among the complex of issues before the United Nations Water Conference in Mar del Plata, Argentina. The task of the Conference was to promote preparedness, national and international, to meet soaring demands for domestic and industrial uses of water, and for irrigation to step up food production in the next few decades.

A recent study of the International Food Policy Research Institute in the United States estimates that in order to avoid a serious food deficit by 1985, developing countries would have to increase their food grain output by about 4.25% a year from 1976 onward. That is more than double the rate of 1.7% which they attained between 1967 and 1974, and considerably above the 2.5% annual average for the past 15 years.

Development of water resources is critical for the expansion of food production. Many developing countries have a large potential for substantially increasing crop yields through irrigation and improved water management.

Costly mistakes

Yet, the very urgency of the food problem can lead to costly mistakes. While irrigated lands provide on average several times the yields of dry farming, irrigation can be as much a problem as a solution to improved agriculture. Often the institutional components of irrigation schemes have been neglected. Inadequate delivery systems, improper management of water, and poor choice of crops have contributed to low returns. Two-thirds of irrigated lands in Egypt, Iraq and Pakistan are adversely affected by water-logging and the build-up of salts. These countries are engaged in costly efforts to drain excess water and reclaim the productivity of irrigated land.

Half of the existing water facilities in developing countries need renovation and improvement. Relatively modest investment in improved water channels and desilting of small reser-

voirs could provide substantial returns. More ambitious proposals before the Rome World Food Conference placed emphasis on improvement of existing irrigation facilities, at an estimated cost of over \$21 billion for 46 million hectares, followed by new irrigation programmes for some 23 million hectares at an estimated cost of \$38 billion. The Conference did not endorse these targets, but gave recognition to the importance of improved water management.

Medium and small-scale irrigation projects have a definite advantage over larger ones. Smaller projects provide flexibility for adaption, local involvement and integrated management of the many factors necessary for successful agricultural development. There are many project opportunities to divert, pump, store and distribute water for irrigation. Whether or not irrigation is needed, farmlands should be properly leveled for more effective water management. The new International Fund for Agricultural Development should seek out relatively small water projects which provide an early return in increased food.

Priority should be given to better use and conservation of presently available water resources for crop and livestock production. It is often possible to save significant amounts of water by better farm management. Cultivation practices are significant factors in shaping the flux and storage of water within the soil in farmland areas. Spray and trickle techniques are capable of distributing water very sparingly. An important need is for better coordination in the application to farm problems of the several specialities related to the effective use of water.

Better water and farm management is essential, but in order to achieve a modernization of agriculture it must be accompanied by a structure of market incentives which yield appropriate returns on rural investment. Increased investment is required for better markets, village access roads and for large numbers of vermin and moisture-proof storage structures. Many of the necessary facilities can be constructed by human labor, thereby helping to relieve unemployment. But investment is also needed for manufacture or import of chemical fertilizer,

Rice production could rise dramatically with proper irrigation



pesticides and farm machinery. Where there is sufficient command of water resources, double and triple cropping is possible with machinery to speed cultivation, harvesting and drying of crops.

Heading the list of investments for expanding agricultural production in developing countries is investment in people, in their basic skills and health. This brings us back to the importance of safe drinking water. The government of Venezuela has estimated that investment in clean rural water returns its costs over five-fold in additional working days and productivity which better health makes possible.

In the period 1971-75 estimated investments in developing countries for community water totalled some \$11 billion with about 12% from foreign assistance and about \$4 billion for sanitation facilities with 5% from external sources.

Targets

The United Nations Water Conference had before it the Habitat resolution on achieving safe water and related sanitation measures for all communities by 1990. Targets for community water supplies were adopted by the World Health Assembly in 1972 but progress to date has been far from satisfactory. A World Health Organization survey in 1975 indicated that about three-quarters of the urban population of developing countries is adequately served by community water and sanitation services. The proportion for rural peoples drops, with 22% having reliable drinking water and 15% being served with proper sanitation facilities. Without an increased effort there will be little improvement in drinking water and sanitation facilities for large parts of the world in the years ahead.

If the benefits of development are to reach the poorest people, increased investment in food production, in safe drinking water and sanitation must be recognized as central elements of development policy. This will mean major change in past development priorities of developing countries and higher levels of foreign assistance.

Programmes for stepped-up water development for agriculture and livestock production should include community water as a priority component. Higher water quality for people initially could be provided by simple sanitary protection and treatment procedures. This would benefit a large number of people with simple services which could be upgraded later as incomes increased. An interim target for community water and sanitation facilities would be to double the annual average rate of investment from the \$3 billion of recent years to **at least** \$6 billion a year—with external assistance increasing to an annual level of \$1 billion, in contrast to the estimated \$300 million annual level of past external financing.

One objective of the United Nations Water Conference was an annual investment of \$9 billion for community water supplies and related sanitary facilities, in an effort to meet minimum needs by 1990.

Food, water and health objectives can best be achieved through longer-term, broadly integrated programmes for rural and water development. These programmes place a heavy



FAO photo

"A third of the people in developing countries are forced to rely on contaminated water"

burden on developing countries for improved planning, management and mobilization of resources—and they require close cooperation between developing country governments and donors to augment technical and capital resources. The Club du Sahel is a major effort for integrated, longer-term planning by the Sahel countries of Africa to achieve food self-sufficiency working cooperatively with donors and internal organizations.

The Secretary General of the United Nations Water Conference, Yahia Abdal Mageed, has called attention to the importance of "greater cooperation between bilateral assistance programmes and those of the United Nations and other international systems, with a view to achieving coordination among all programmes in the water resources sector. This would primarily benefit recipient countries where the assistance available is too often fragmented and uncoordinated to be fully effective, but it would also provide an incentive for bigger and better programmes on the part of the donors."

Through the International Water Conference, and resulting follow-up actions, governments have an opportunity to affirm their support for programmes of adequate food, safe water and improved sanitation—through appropriate management of water and other resources—as basic to the needs of all people. □

M.J.W.

Water and food

by Pierre ROUVEROUX (*)

Whether as rain or as irrigation, water is vital to plant life. An average 400-500 litres of water are needed to produce 1 kg of dry matter. The population of our planet has doubled in 25 or 30 years, millions of people are starving or suffering from malnutrition and we are all aware that world food production must go up.

Of course, schemes have been run in the most underprivileged areas and reasonable results have been obtained, but it is nonetheless true that an enormous effort has still to be made in the developing countries, where the population increase has caused **per capita** agricultural production to drop over the last 10 years (1).

Solving world hunger

The rational utilization of available water is, of all the potential means of pushing up food resources, clearly a determining factor in countering the unreliability, inadequacy and sometimes total absence of rainfall.

In arid or semi-arid zones, yield per unit area of irrigated crops is 10 times greater than for dry crops and the 230 million or so hectares under irrigation produce 25%-40% of world production, from a total of 4 400 million hectares.

This means that if, as has been suggested, it really is possible for irrigation to provide a further 600-800 million km² of cropland over the next 30 years, then it should be possible to solve the world hunger problem.

The extent of world water resources

Contrary to certain, rather simplistic views, there is no world shortage of water. There are constant supplies of water because "evapotranspiration" means that waste from the various users is returned to the atmosphere and can then fall



Bringing water to the farmers: irrigation in Upper Volta



Ethiopia — dry land is dead land

(*) Member of the French Academy of Agriculture.

(1) If 100 is taken to be the index for 1961/63, agricultural production per head of the population went from 101 to 99 between 1963 and 1973, whereas, in the developed countries, it went up from 102 to 112 over the same period.

again in the form of rain. But rainfall is irregular in both time and space.

This means that, in areas which get enough rain but where industrial development, increasing population and urban concentration have pushed demand beyond natural supply, the water that was once thought to be endless is now looked upon as a capital asset which has to be used sparingly and may well be the subject of transfers and bargaining by the various parties concerned.

It also means that, in areas where rainfall is sparse—which concern us particularly here—the various types of surface and subsurface resources must be developed if crops are to grow properly.

Conditions of water utilization

There are several well-known types of water-control schemes.

They may involve using improved growing techniques to increase the retention of soil-borne water, they may use appropriate methods to prevent flooding from damaging crops and ensure the disposal of waste water.

They may involve the methodical prospection of exploitable resources. They may even involve storing supplies from surface sources for part of the year or they may consist of transporting water to the users, particularly farmers in the case in point.

Practically speaking, man uses primarily surface and subsurface water for irrigation.

Surface water includes sources which can be tapped but which, because of their generally limited flow, are kept for domestic demand. These are the small rivers whose water can be stored by means of dams for the crops in the dry season (hill lakes).

Water from major rivers with high streamflow can be pumped directly and, when the topological features allow, water can be run off from the current. However, when large areas of land are to be improved by irrigation, large-scale construction (dams to control and store the water) will be necessary so that the water can accumulate before being supplied to users via a network of channels or pipes.

The last source is waste water from town and factory drainage systems in urban areas and run off and drainage water in the country. In the past, this tended to be lost, but is now being recycled and reutilized.

Subsurface water is of two types. Firstly phreatic water which is not too far down. Output here is usually restricted and varies from one season to the next according to the amount of rainfall. It can be tapped by sinking wells and boreholes but cannot be used for irrigation unless only complementary watering is required.

Secondly there is deep-seated groundwater—such as the Albién—where outflow is large and regular but where boreholes

sometimes deeper than 1 000 or even 1 500 m are necessary.

They can only be economically used for irrigation in the case of artesian water since energy consumption would otherwise have an abnormal effect on the cost price of water.

Problems of developing land in arid or semi-arid zones

In temperate countries, irrigation is used traditionally for certain crops in areas where rainfall is inadequate. It is also tending to spread to areas of regular rainfall as additional water to push up the yield of dry crops.

The situation is completely different in countries in the tropics—like those in the Sahel, North-eastern Brazil, the Andes and the dry areas of India—where famine and malnutrition are the permanent results of inadequate agricultural production.

In these countries, irregular and inadequate rainfall means that irrigation, where possible, is the only way of improving the yield from land already under cultivation and of developing new agricultural land.

Except for certain tropical soil that forms sterile laterite when its plant cover is removed, there are many patches of desert and poor pasture land which can never be very productive, even with proper irrigation.

And, although not all potential resources have been inventoried, there would appear to be water reserves (surface and subsurface) sufficient to irrigate extensive areas.

Take just one example. A large part of the Sahel could be turned over to irrigated crops if the right installations enabled full use to be made of the water from the innumerable streams and major rivers whose streamflow represent billions of m³ every year (*see following article*).

There are various schemes that could boost agricultural production in the arid and semi-arid zones. In some cases, schemes could use the appropriate growing techniques to improve the retention of water in the soil by reducing evapotranspiration (dry farming). Elsewhere, the creation of a large number of reservoirs by building small dams on the wadis and backwaters would mean that the ill effects of flooding could be avoided and the necessary water stored to ensure plant growth during the dry season.

Schemes of similar scale could improve and expand the growing of crops during low-water periods and the draining of certain areas could mean earlier planting. Similarly, if groundlevelling and improvements to existing supply networks were properly completed, the available water could be more rationally used and, therefore, more land could be brought under irrigation.

These are some examples of specific schemes which would be implemented cheaply and relatively quickly by the farmers themselves, if they received the right sort of training. Individual schemes can only cover small areas although, in many cases, they can bring about an inevitable increase in production.

Large-scale water engineering schemes will be vital where

vast unproductive tracts of land are to be developed, although there are still a number of outstanding complex problems, which, in the past, were ignored or underestimated by the governments, whose main aim was to embark upon prestige schemes.

Technical constraints on large-scale water-engineering

Contrary to what the uninitiated might expect, water alone will not make the ground productive. The transfer from dry to irrigated crops, plus the successful use of water on what used to be desert or savannah, raises delicate problems.

- The species and varieties chosen must be those which will produce normal yields in the natural surroundings in question.
- The right types of rotation cropping and growing techniques to maintain soil fertility must be defined.
- The most suitable fertilizers for the relevant plants and soil must be determined.
- The methods of controlling pests etc. (particularly numerous in areas under irrigation) must be defined.
- The volume of water and the frequency of application needed for each crop must be calculated (1).

(1) In arid zones, an average 10 000 m³ per hectare is normally needed for irrigation by gravity (95 % of all irrigated land). This can be cut down by two-thirds if sprinkler or drip irrigation is used, although these methods demand expensive infrastructure and equipment and are out of range of most developing countries.

Akosombo hydro-electric scheme (Ghana): 85 000 people once farmed the valley filled by this artificial lake



— The methods of disposing of waste water must be determined.

— It must be decided how to prevent soil erosion in the river basins from filling in the reservoirs too quickly.

— The features of the distribution network must be laid down in the light of topographical features, land division and individual needs.

Financial and economic constraints

Authorities wishing to instal large-scale irrigation systems are faced with considerable investments(1) in addition to the variable but permanent costs of upkeep—which consumer dues(2) tend not to fully cover.

Any calculation of the financial return on a hydro-agricultural scheme should be viewed with caution, particularly since, as we shall see, it is difficult to predict how long it will take (always an extended period) before the improved area is being fully exploited.

Fair-sized works should be no more than an integral part of overall development plans and the success of such schemes must be measured in terms of overall results in the various fields of production, settlement, and the populations' living and nutritional standards.

Once a large area is irrigated, the resulting harvests mean that huge amounts of perishable and non-perishable products become available.

Even with much larger populations, the local market could not take it all, particularly since the techniques of crop rotation mean that only a small percentage of overall production is food that can be consumed on the spot. A large part of production therefore has to be sent to consumer centres some way away or packed or processed for export.

This involves setting up transport routes and packing and processing plants.

In the past, we have tended to forget that an influx of goods can upset the market and provoke massive price cuts. The growers are the first to suffer and those who have just gone over to irrigation may well be discouraged at the outset. This must be avoided by ensuring that comprehensive market studies are carried out before new crops are introduced onto irrigated land and by setting up proper collection, storage and marketing facilities for the anticipated harvests.

Social and human constraints

Experience has shown that the growers involved in most major hydro-electric improvement schemes, are unenthusiastic or even hostile and a patient, long-drawn-out effort is needed

(1) The cost of investments is always high, although it varies with size of dam and type of site and with the structure and extent of the distribution network.

(2) Users are usually charged a unit price per area irrigated, except where the water is under pressure, in which case the amount actually used has to be paid for.

if they are to be convinced of the usefulness of the innovations.

In a heavily populated country, with centuries-old agricultural traditions the construction of a major dam will involve submerging vast areas of cropland upstream as well as villages, which will then have to be built elsewhere. The downstream picture is much the same, where the terracing and civil engineering works involved in creating the distribution network have to be carried out and the drainage facilities installed. Changes also have to be made to traditional land structures so that the water can be used rationally and growers look upon this as an unwelcome attack on their rights of ownership.

Even more delicate problems arise when irrigation is introduced into an arid, previously desert, region. In this case, populations which are attached to their ancestral homelands, have to be moved to completely different surroundings.

And peasant farmers who manage with poor harvests from dry crops are never keen to embark on new activities where demands are impossible to predict. They are afraid of having to put in extra work and take out loans to obtain the recommended equipment and products, particularly since they are sceptical about the advertized yields and tend to ignore how much they would be paid for future production.

This explains why, in most cases, irrigated areas are only installed very slowly and that a long period, perhaps as much as 25-30 years, elapses between the beginning and the end of such agricultural schemes.

* * *

These various constraints—which have tended to be overlooked—can of course be overcome and we are convinced that irrigated crops, the only means of improving large and currently unproductive areas, could be extensively developed.

It is also vital to carry out a number of major hydro-agricultural improvement schemes where many, albeit surmountable, problems are bound to arise.

A coherent policy giving priority to agricultural production should enable the technical and economic problems we have mentioned to be solved.

International cooperation, the effects of which are already apparent, should mean that countries in need of help can make the investments which large-scale improvements require. The human problems, which have proved to be the most delicate, would appear to be best overcome by a series of schemes whereby the farmers who are due to use the irrigation facilities help with construction, and qualified instructors provide training and extension services, housing, schools, and health services etc. commensurate with their needs and aspirations.

If, ultimately, as we hope, a major effort is made to decide what type of interventions would be most suitable for the natural environment, how they fit in with the development possibilities of the populations in each case and how they can be successfully completed, a great step will have been taken towards fighting hunger in the world today. □

P.R.

Adapting needs to water resources: the case of the Sahel

by Guy MATON (*)

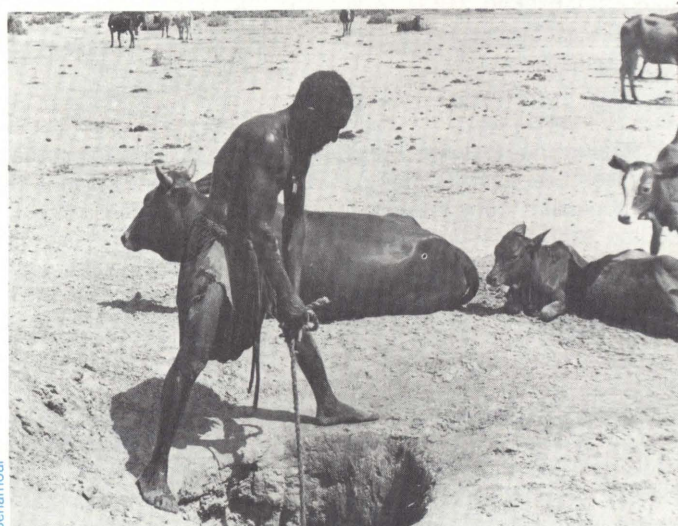
At a time when man is wondering about the future of civilization in the face of the world's rapidly dwindling natural resources and everyone is trying to take stock of the situation, the recent drought in the Sahel has given us further food for thought. The world was confronted with the problems arising from the lack of water in this region, which, for our purposes, will be taken as covering Mauritania, Senegal, Mali, Upper Volta, Niger and Chad—more than 5 million km² and upwards of 25 million inhabitants. The public needed to be informed, and this was done by means of a survey of needs in relation to known resources and by a demonstration of how it was possible to provide men and livestock with the water they needed. This article sums up some of the main findings.

How much water is needed?

For the population

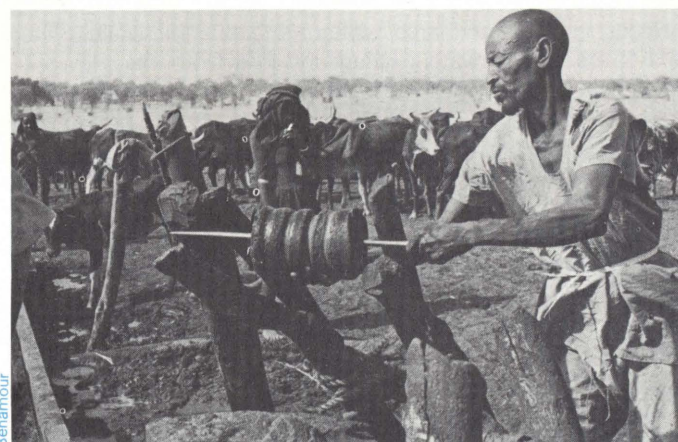
Current per capita consumption by the 22 million people living in rural areas varies from one region to another from 10 to 40 or 50 litres per day (average=30 litres) according to the relative difficulty of obtaining supplies. Consumption is 70-100 litres per day in the small towns (2.5 million people) and 150-200 litres in the large towns (2.5 million). On the basis of these figures, we can estimate the annual drinking water requirement of the population at around 500 million m³.

If the population grows at the generally accepted rate of 2.8% p.a. and the towns expand faster, as anticipated, there will probably be some 43 million people—30 million in rural areas, 5 million in small towns and 8 million in capital cities and other major urban centres—living in the Sahel by the year 2000. Per capita consumption will rise slightly, leading to an overall figure of around 1400 million m³ per year. The needs of industry—which should logically be added to those of the population—are not easy to assess, particularly in the long



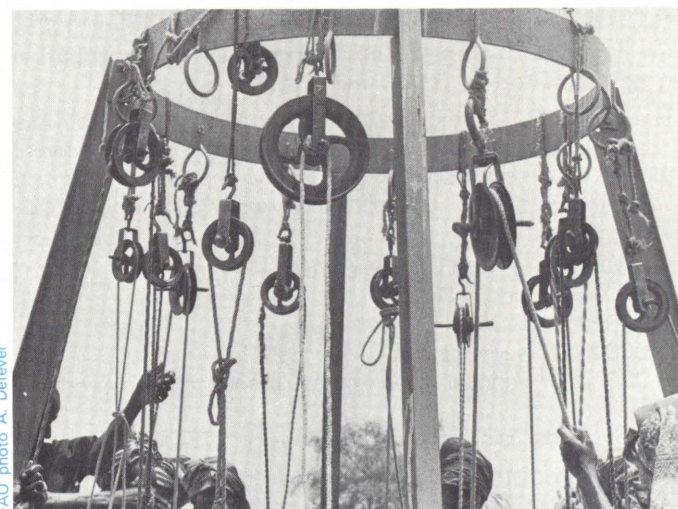
Benamour

Drawing water the hard way



Benamour

Traditional pulley in Chad: the herdsman carries his own with him



FAO photo A. Defever

Pulleys for everyone at a well in Senegal

(*) Head of the department of hydraulics, Ministry for Cooperation, Paris.

term. However, when they are included in the overall assessment, it emerges that **total consumption in the year 2000 should not exceed 2000 million m³ per year.**

For the livestock

Assuming that average intake is 30 litres per day for cattle (25 million head) and 5 litres per day for sheep and goats (30 million), **current consumption is around 350 million m³ p.a.**

Some estimates suggest there will be 30 million head of cattle and 50 million sheep and goats in the Sahel in the year 2000. **Total annual consumption of water would be 450 million m³.**

For crop irrigation

This depends on a number of things, particularly the latitude of areas under irrigation, the time of year when the crops are planted (dry or rainy season), the duration of the plant cycle, the method of irrigation used and so on. Any overall assessment can therefore only be based on orders of magnitude.

Needs in cultivated areas where there is full-scale water control are as follows (including any loss from the network):

- rice—rainy season 17 000 m³/ha
- rice—dry season..... 22 000 m³/ha
- wheat (or other cereals)—dry season..... 10 000 m³/ha
- perennial crop (sugarcane or forage)..... 30 000 m³/ha

The consumption of paddy fields where controlled flooding is used is difficult to assess, since it varies according to the topological features of the submerged areas. A rough estimate puts the figure at an annual 25 000 m³ per hectare under cultivation.

At the present time, only about 90-100 000 hectares are being irrigated by classical methods in the six countries of the Sahel—the Office du Niger (Mali) alone accounting for more than half. At the moment, most of these areas only yield one annual crop (usually rainy-season rice) and water control is not always entirely satisfactory. These submerged paddy fields also cover some 100 000 ha, of which 60 000 are in Mali.

On the basis of these figures, **current needs for irrigation can be estimated at 5 000 million m³.**

The studies currently being carried out by the Club des Amis du Sahel give some idea of the order of magnitude involved. If the six countries concerned are to become self-sufficient in food by the year 2000, the following areas will have to be cultivated:

- (i) under irrigation with water control:
 - 400 000 ha of rice;
 - 200 000 ha of wheat (or other cereal);
 - 100 000 ha of sugarcane;
 - 50 000 ha of various crops (forage, market garden products etc.)
- (ii) paddy fields using controlled flooding: 175 000 ha.

Completion of this programme would bring **the annual water requirement to around 21 000 million m³**, broken down as follows:

- Senegal basin..... 7 000 million
- Niger basin 7 000 million
- Chari-Logone (1) basin 2 000 million
- Other (Volta, Gambia etc.) basins..... 5 000 million

These estimates do not include crops grown at low water level since they are unreliable, productivity is low and they require very large quantities of water per tonne of cereals produced. They will gradually be phased out, at least from the Senegal Valley.

Water requirements

	Current needs (million m ³)	Needs in the year 2000 (million m ³)	Increase ×
Population (and industry)	500	2 000	4
Livestock	350	450	1.3
Irrigated crops (excluding those grown once river has fallen)	5 000	21 000	4.2
Total	5 850	23 450	4

This table shows that the annual water requirement will increase fourfold between now and the year 2000, rising from roughly 6 000 million to roughly 24 000 million m³; and that irrigated crops account for almost 90% of the total requirement.

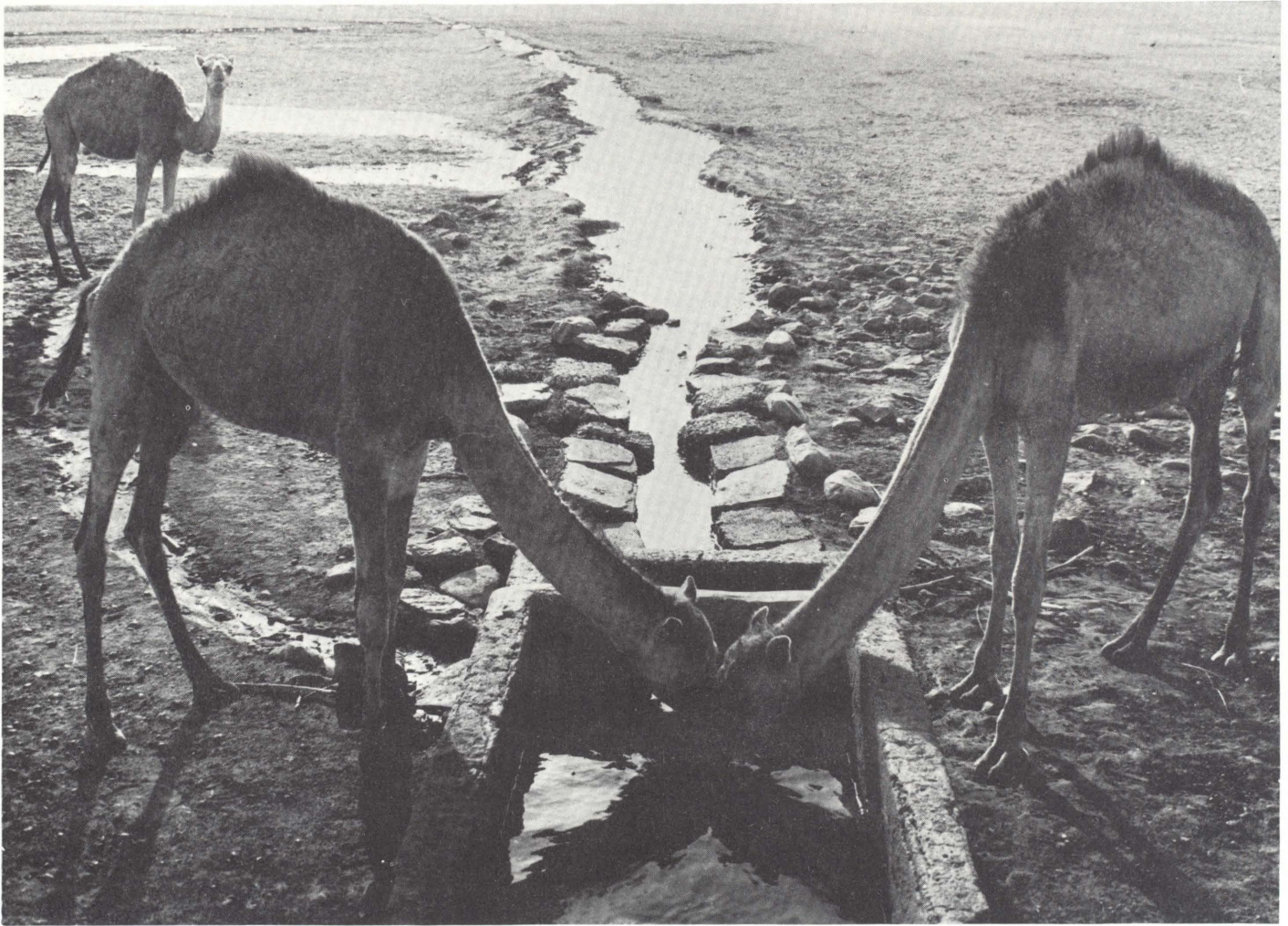
Assessment of water resources

Subsurface water

A lot is known about subsurface water in the West African section of the Sahel, thanks to the many hydrogeological surveys carried out in the region over the last 30 years and to observations made during the sinking of wells and bore-holes. The abundant literature on the subject was summarized by the BRGM (Bureau de Recherches Géologiques et Minières—Geological and Mining Research Office) in 1975 under the following headings:

- productivity of aquifers (daily output);
- their resources (useful reserves);
- mean cost price per m³ of pumped water;
- chemical properties of the water, in particular suitability for irrigation.

(1) Not including Cameroon's needs.



Camels grateful for a man-made pool

There are two types of groundwater in the Sahel, according to geological formation.

(a) Continuous aquifers in sedimentary formations of high permeability

The existence of vast continuous aquifers—more than 30 are analyzed by the BRGM—is due to the widespread presence of this type of geological formation south of the Sahara. This continuity means that the properties of the water do not vary and that it can be tapped at any point. Reserves are enormous and productivity per catchment varies from several hundred to several thousand m^3 daily.

For example,

Upper Senonian sand and sandstone aquifer

This occupies an area of 150 000 km^2 , covering most of Senegal. Drilling restricted to the upper level of this captive,

rising groundwater, 200-250 m deep, yields flows of 150-200 m^3 per hour. Useful volume is about 50 000 million m^3 .

Tegama sandstone aquifer

This covers 400 000 km^2 from the south of Aïr to the Niger border and from the Tenéré region to the River Niger. The formation is 500-700 m deep and contains a useful volume of 200 000 million m^3 of water. Productivity varies between 1 000-5 000 m^3 per day per catchment.

(b) Discontinuous aquifers in geological formations of the pre-cambrian crystalline sub-stratum (granite, gneiss and shale)

This mainly occurs in Upper Volta, in the Liptako area in Niger and the Ouaddai in Chad.

These impervious rock formations have only acquired a certain amount of very localized permeability due to weathering or

fracturing of the matrix. Productivity from these restricted sources tends to be low (25-100 m³ per day per catchment) and the fact that they are localized means that preliminary prospection is generally required.

Zones declared sterile in the present state of our knowledge are confined to a small area—a narrow strip from Bennichab to the east of Kaedi in Mauritania, a small area in the Aouker and a third, slightly larger, stretch, east of the Néma-Nara line in Mali.

Subsurface water resources therefore exist almost everywhere, but the flow varies widely from region to region. Overall, useful reserves represent 1 000-1 500 000 million m³ of water and an estimated annual 55 000 million m³ can be tapped by the six countries concerned without disturbing the balance of the generally slowly-replenished groundwater.

Surface water

The main resources here are the major rivers of the Sahel, whose upper catchment area is in regions of heavy rainfall (Guinea, Central Africa and Cameroon).

A lot is known about this system thanks to observation over the last few decades and summaries (monographs etc.) by the ORSTOM (Office for Scientific and Technical Research Overseas).

These rivers provide the Sahel with enormous quantities of water every year—an estimated 135 000 million m³ in an average year, as follows:

22 000 million by the Senegal;
67 000 million by the Niger and the Bani;
46 000 million by the Chari and the Logone.

Even in a dry year, like 1973, these rivers brought some 60 000 million m³ water into the Sahel. Other rivers whose whole catchment areas are in the Sahel or Sudan-Sahel regions also bring in a considerable annual quantity of water—some 15 000 million m³ on average. For example, the White Volta at Bagré, 1 000 million m³; the Black Volta at Boromo, 1 400 million m³, etc.

Thus, 150 000 million m³ of surface water are available in an average year. This represents more than the total average quantities from the White Nile and the Blue Nile (120 000 million m³) before they enter the Sahel.

Adapting needs to resources

For health reasons, both population and livestock should be supplied with water from subsurface resources and it is preferable, if not vital, for land to be irrigated as far as possible with surface water.

In view of agricultural requirements, the low yield of wells and boreholes tapping subsurface water effectively restricts

the areas each can irrigate. The general result is that the very high costs of investment per hectare combined with the pumping costs, which often exceed CFAF 20 per m³, put this method out of reach of the incomes obtained from most crops. The use of subsurface water for irrigation is therefore destined to remain marginal for some time to come, since it is only an economic proposition in certain specific cases like market gardening or the watering of small village plantations from groundwater near the surface, in alluvial soil etc. However, this by no means reduces the interest of spreading the technique—which could well be used on a small scale in many places.

On the other hand, the use of surface water, which is very abundant in some areas, means that extensive and economically viable irrigation networks can be set up. Provided the right means are used—and the Office du Niger's Markala dam is a prime example—irrigation by gravity, requiring no energy, can be used throughout the crop cycle. When the water has to be pumped, the cost (CFAF 2-5) per m³ is still very acceptable because the distances involved are not very great.

As the economy stands, water supplies tend to be used as follows:

- subsurface water by population and livestock;
- surface water by agriculture.

In the year 2000, therefore, supply and demand of water should be as follows (in m³):

	Demand in the year 2000	Supply
Subsurface water	population : 2 000 livestock : 450 (1) <hr style="width: 10%; margin: 0 auto;"/> 2 450	55 000
Surface water	irrigation : 21 000	150 000 (average year)

(1) This is a maximum because animals tend to use surface water in the rainy season.

The table clearly shows that, overall, water resources will easily cover anticipated demand and this trend should continue well into the 21st century, even if the population goes on increasing at current rates. So, water is not a limiting factor of development in the Sahel, in spite of the unpredictable climate.

However, this overall analysis obviously glosses over a large number of regional differences arising from the unequal distribution of water resources. Certain zones, like the major valleys, where water and soil potential is enormous, will be certain candidates for rapid development, while others will remain more or less unfavoured.

Whatever the natural constraints that will inevitably shape these states' development policy in the long term, the problem of improving the standard of living of the ever-increasing population is less a question of hydraulic potential than of the technical, human and financial means that will be needed if this potential is to be realized.

This means that an enormous effort will have to be made to install the appropriate infrastructure and equipment and, of course, to train men to manage, maintain and make the most of such installations.

There is no time here for even a brief description of the diversity and specificity of this infrastructure—which will have to be adapted to each individual case—and we shall therefore confine ourselves to outlining the general problems of the relation between supply and demand in each category of user.

Water requirements

The population

Demand in rural areas can almost always be satisfied if a large number of wells and boreholes—some of which will have to be hundreds of metres deep—are sunk. Even in problematic areas of this kind (such as the Mossi plateau, Liptako etc.) where water-bearing formations are discontinuous and the population tends to be dispersed, experience suggests that, provided the preliminary research (geophysical investigations and prospective drilling) is carried out, it is possible to sink wells and boreholes which will provide enough water for small towns and villages.

It would be preferable if implementation were always preceded by a programming phase when a systematic, village-

Pumping station in Chad — a modern oasis



by-village inventory of needs and the means of satisfying them were drawn up. Upper Volta, which has been doing this since 1964, is a good example here.

However, it will not always be possible to supply large—and sometimes medium-sized—towns with water from suitably placed subsurface sources, in view of the lack of outlets. In this case, surface water, treated in purification plants, will have to be used. For example, Dakar gets one third of its water supply from Lake Guiers and Ouagadougou's whole supply comes from water stored in artificial reservoirs.

Livestock

The Sahelian pasturelands tend to coincide with major, continuous aquifers. Since the overcrowding of livestock round water points has to be avoided at all costs—so that vegetation and soil do not deteriorate—daily needs per outlet barely exceed 200 m³.

These needs can often be met quite easily by sinking deep boreholes and if there are not enough suitably placed outlets, more can always be sunk.

The main problem is maintaining a proper balance between forage and water resources, the latter usually being more plentiful than the former. Care must therefore be taken not to create isolated water points which would attract too many cattle. This rule inevitably leads to the simultaneous creation of a fairly large number of boreholes between 12 and 30 km apart in a given region, to prevent livestock from having to travel too far.

Irrigation

Regardless of the size of the area under irrigation, the success of agricultural development on even the smallest plot is based on total water control. The plants must obtain the water they require at all times.

Such water control must be maintained at as high a probability rate as possible (in the region of 1) even—or especially—in times of drought, since this is when irrigated agriculture must be able to guarantee a minimum level of food production.

An analysis of all the Sahel river systems, large and small, shows a striking irregularity in the streamflows in a given year and from year to year. Many of them disappear during the 7-8-month dry season and even the major rivers are subject to enormous variation. The Senegal or the Niger can carry more than 5 000 m³ per second when in spate, although at low-water level this drops to between one and a few dozen m³.

The possibilities of **guaranteed** irrigation therefore depend on water supplies meeting at least 95 % of plant needs, month by month or, better still, decade by decade over the period of growth. This analysis shows that the areas that can be irrigated **all year round** without regulating the streamflow are extremely limited, particularly bearing in mind the need to maintain a minimum flow to ensure the survival of aquatic flora and

fauna. Depending on the growing methods adopted (rice plus rice, rice plus wheat or other cereal etc.) these areas vary between 83 000 and 115 000 ha, as follows:

- Senegal: 0-10 000 ha;
- Upper Niger and Bani: 10 000 ha;
- Middle Niger: 7 000 ha;
- Logone: 11 000 ha;
- Chari: 53 000-80 000 ha.

Apart from the Chari, which maintains a much higher flow than the other rivers during the low-water period, the possibilities of guaranteed agricultural production without the use of regulating dams will soon be exhausted, particularly so in the case of rivers with only small or medium-sized drainage basins.

It would clearly be possible to restrict agriculture to one annual crop, making use of the period of high water, in which case, irrigation possibilities would be very much (several million ha) greater, although total water control throughout the crop cycle would be quite out of the question over such large areas (cf. the difficulties experienced by the Office du Niger in carrying out proper irrigation in June-July over a 50 000 ha area).

Furthermore—and quite apart from the need to ensure full employment for rural populations in the long term—economic considerations, particularly the high cost (CFAF 1-2 million) per improved ha, whether perennial or based on two annual crops, mean that agriculture must be as intensive as possible. Few hydroagricultural projects will be profitable otherwise.

Technically speaking, the development of permanent systems of irrigation beyond the above-mentioned limits ultimately depends on small and large regulating dams being built. Almost complete regulation of the major Sahel rivers, a very long term possibility, would enable 2 500 000 ha of land (two crops p.a.) to be irrigated.

Economically speaking, it is obviously better to build big dams than to extend areas where single crops are irrigated by unregulated river water (usually rainy-season crops).

Finally, if the anticipated demand for food in the year 2000 (as it emerges from the self-sufficiency targets fixed by the Club des Amis du Sahel) will only be met if 550-600 000 ha of land is prepared for irrigated crops and a number of large-scale dams are built to regulate the water, in most cases for various purposes—agriculture, HEP and navigation. Suitable locations are: Manantali and Diama in the Senegal basin, Selingué, Tossaye and Kandadji in the Niger basin, Goré or Kounbam in the Logone basin, Bagré on the White Volta, Sourou on the Black Volta and Sanbangalou or Kekrati on the Gambia.

* * *

This summary, despite its brevity, reveals how much remains to be done in the Sahel if the population is to be provided with the infrastructure it needs to satisfy their basic needs. We must hope that the considerable financial means needed to carry out these programmes will be the subject of a vast international effort. □

G.M.

Operation and maintenance of rural water supplies ⁽¹⁾

by Dr Alexander CAIRNCROSS and
Dr Richard FEACHEM^(*)

All over the Third World, there are village water supplies, often installed at considerable expense, which have broken down. A recent survey in Ethiopia found that half the handpumps inspected needed repair, and more than half the supplies using diesel powered pumps were not running. In Lesotho, a country whose Rural Development Ministry places a truly remarkable emphasis on water supplies, we estimate that one in three of the village water supplies is out of action. The problem is not confined to Africa; it has been claimed, for example, that over 20 000 of the handpumps in India are not working. In several countries, water supplies are breaking down at rates similar to those at which new supplies are being constructed.

The importance of maintenance

These breakdowns all over the world are symptoms of the current neglect of operation and maintenance of rural water supplies, by comparison with the construction of new ones. Governments have sometimes rationalised this neglect of the need for maintenance by stressing that the community, not the government, bears the responsibility. Lack of maintenance is also due to the greater ease of obtaining development finance from donors than recurrent funds which must usually be taken from the government's own, often limited, sources of revenue. Whatever the explanation, the failure of procedures for maintenance is the major reason for the disastrous breakdown rates for rural water supplies reported from many developing countries, which represent a tragic waste of the meagre resources available for rural water development.

If scarce resources are to be used to their full effect, **governments and aid donors must place greater priority on**



Documentation Française

“Governments and aid donors must place greater priority on maintenance than on construction of water supplies”

maintenance than on construction of water supplies. Whilst this may appear paradoxical, because it seems to run counter to the chronological order of the activities, it is in fact logical and necessary, for several reasons.

Firstly, with regard to the chronology, most developing countries have already embarked on rural water supply programmes, and already have a backlog of many supplies which are urgently in need of routine maintenance and often major repair, and the repair and maintenance of these supplies should take first priority over the construction of new ones. In any case, the maintenance of rural water supplies should be considered at the planning stage, well before construction has even begun. Not only should the maintenance work required by each type of supply be considered, and minimised, when choosing the most appropriate technology, but advance planning is also necessary to make provision to meet that requirement from the moment the first supply is commissioned.

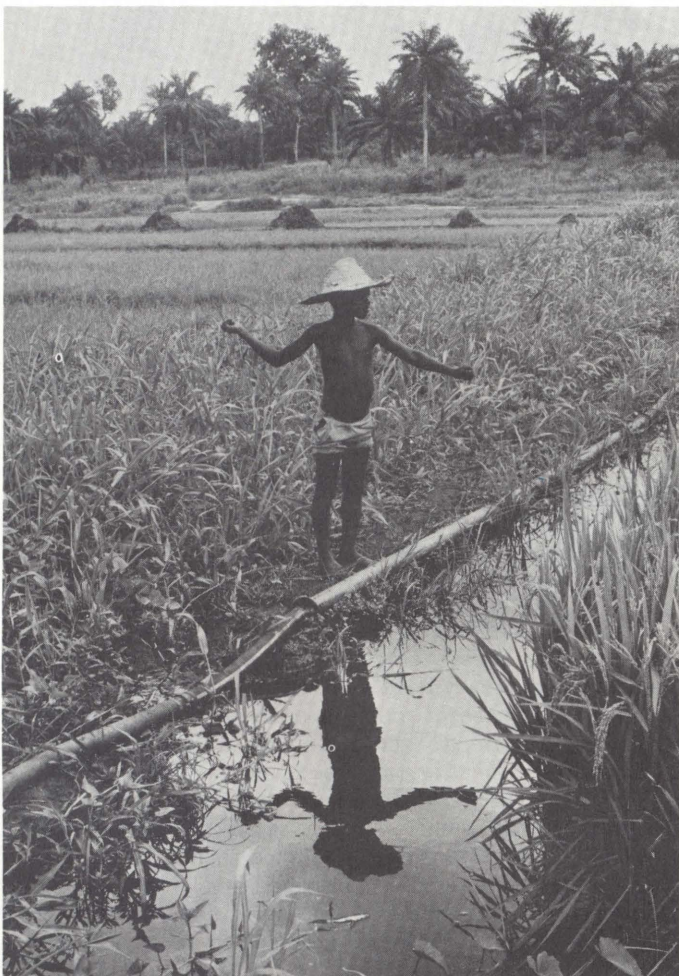
(1) This paper is based upon a chapter of a forthcoming book entitled **Water, Health and Development**, by Feachem, Cairncross, Curtis, Cross, Southall, Cronin, Lamb, Khan and Burns. Another volume, **Water, Wastes and Health in Hot Climates** (edited by Feachem, McGarry and Mara) was recently published by John Wiley and Sons and will be of interest to readers of this paper.

(*) Dr Cairncross is a research fellow, and Dr Feachem a lecturer in tropical public health engineering at the Ross Institute of Tropical Hygiene, Keppel Street, London WC1E 7HT.

Secondly, the maintenance capacity of a rural water supply programme is, in the long term, the major constraint on the number of people supplied. However many supplies may be built initially, the number working will ultimately be the number which can be adequately maintained. When, as in most developing countries, over 20% of the rural water supplies are out of action at any time, then the government can significantly increase the population served much more cheaply and quickly by repairing them than by building an equivalent number of new supplies. There is no danger of maintenance capacity outgrowing the requirement, as spare capacity can be used for the extension or improvement of existing supplies, or for the construction of new ones. It is common, however, for the rate of construction to increase out of all proportion to the government's ability to provide the necessary long term maintenance follow-up.

Thirdly, the setting-up of adequate maintenance procedures and facilities is likely to present a much more difficult task to a developing country's administration than an increase in its construction capacity. Local community participation of some kind is almost invariably required for successful operation and main-

Farmers learn better rice-growing, but who will maintain the irrigation system?



tenance in the long term, whereas water supplies can be built, and unfortunately often are, after minimal consultation with the communities they are to serve. In any case, it is much easier to mobilise a community's enthusiasm for the short term activity of construction than to maintain its enduring interest in the most prosaic work of regular maintenance. Successful community participation demands a wholehearted and steady commitment on the part of the government to a clearly formulated, well-published and realistic policy on the delicate issues of local government and village institutions—a daunting undertaking for any government. This commitment involves more than statements of policy; it should include a longer term undertaking by the government to provide the manpower and financial resources required to support those institutions and to carry out tasks beyond their capability. Even when these resources have been committed in principle—and we have mentioned that recurrent funds are often in shorter supply than development finance—there may be serious administrative problems such as frequent delays in the release of funds from the ministry of finance. The sheer difficulty of the maintenance task will thus lead to its neglect if it is not given priority.

How, then, can the operation and maintenance of rural water supplies be improved, and the breakdown rates reduced?

Appropriate technology

The first step is to minimise the need for maintenance, by choosing an appropriate type of supply. This is easier to accomplish than in most other sectors. For example, the roads requiring least maintenance are unfortunately the most expensive. By contrast, the simplest water supplies to maintain, which are normally the most reliable, are also the cheapest. However, the choice of appropriate technology for rural water supplies demands a more flexible approach by engineers to standards of provision than they have usually shown in the past. For the majority of the world's population who live in rural communities with grossly inadequate access to safe water, there is no possibility that available financial and human resources will provide them with the high level of water provision and quality to which the people of Europe have become accustomed.

Local community participation

Secondly, some local participation is indispensable if village water supplies are to work effectively. Several developing countries have tried to run rural water supply programmes entirely dependent on the government for all maintenance and repair work, but most of them have found within a few years that the task is beyond their capability. Even if successfully carried out in this way it would be grossly wasteful of scarce resources such as skilled manpower. What may at first seem a simple job of routinely inspecting a few pumps and tightening a nut or two becomes surprisingly quickly a nightmare of breakdowns scattered over a large area, many of them in al-

most inaccessible places, of written-off vehicles and of resignations of overworked and irreplaceable technical staff.

Regular inspection and maintenance work and simple repairs can be successfully delegated to suitably selected and trained villagers. But we do not believe the use of self-help for the maintenance of rural supplies can be an excuse for the government to shirk its responsibility. Whatever may be said by community development enthusiasts about the villagers "owning" their water supplies, and whatever legal arrangements are made—as they should be made—to clarify the question of who owns them in law, water supplies which are built with government money are a national resource, for whose protection and upkeep the government is ultimately responsible. If village-level institutions are to take on certain tasks it is all the more important that they should receive support from the government, so that they can carry them out effectively. This support will consist, firstly, of supervision, advice and guidance on the running of the institutions themselves and of help when organisational or political problems are encountered, and secondly, of assistance with those tasks which the villagers are unable to carry out unaided.

The second type of support, of assistance with tasks beyond the villagers' technical, financial or organisational means, must be planned on the basis of a realistic assessment of the limits to what the villagers can contribute. For example, villages are not normally able, in the long run, to make regular collections of money without legal sanctions. The consequence is that, since rural communities in most developing countries do not have communal funds available for the upkeep of village water supplies, governments must take full financial responsibility for the work. Spare parts and fuel would then be bought with government money, although the villagers themselves might carry out the work of repairing and refuelling the supplies.

Clearly, the type of water supply and the level of technology it employs will determine the amount of maintenance work required, and the type of work may determine the extent to which it can be delegated to the villagers. Re-laying of pipes exposed by erosion, for instance, is a task villagers can well organise and carry out themselves, whereas servicing of a pump may require equipment beyond their means. Conversely, the extent of the contribution demanded of the villagers by a particular type of water supply may make it unsuitable for local conditions. This, for instance, is why diesel pumps are unsuitable for many small communities.

In short, what is required is a genuine partnership between government and village, in which only a reasonable amount of responsibility is delegated to the village. We are alarmed by the tendency in many developing countries to hand to the villages responsibilities which it is quite unreasonable to expect them to achieve. Indeed villages in developing countries are often asked to take responsibilities which villages in Europe would never accept. How many villages in Europe run and maintain their water supply with no formal and statutory institutions to assist them? Rural institutions with no statutory powers in all parts of the world experience extreme difficulty in performing routine tasks, especially when the regular raising of funds is required.



The children of Sule Tankaba, Kano (Nigeria)

"It may well be possible to place a tap in every village by 1990... but it is very doubtful how many of these taps will be delivering water"

Targets

One immediate consequence of the need for greater emphasis on maintenance than construction is that the rate of construction of village water supplies is not itself an index of the progress of a village water supply programme. Government targets and progress reports, expressed in terms of supplies built, create a highly misleading impression, as they ignore the large numbers of supplies functioning inadequately or not at all, and by encouraging a neglect of maintenance have themselves added to those numbers. Construction targets are invariably over-optimistic and would be better expressed in terms of manpower and resources to be made available to the rural water supply sectors as a whole.

If they are to have any lasting effect on the enormous problem of rural water supply, the experts who gathered for the UN Water Conference must avoid the temptation to follow the example of the Habitat conference, and other such international gatherings, in setting targets in terms of construction without regard for abilities to operate and maintain. If the water conference has been successful in raising the level of international awareness on the global water supply crisis, it will undoubtedly lead to an increase in the availability of capital finance and technical assistance for rural water supply **construction**. This, in turn, will lead to an increasing rate of construction in developing countries and so to an increase in the already serious gap between the ability to construct and the ability to **operate and maintain**. It may well be possible to place a tap in every village by 1990 in line with the Habitat target, but it is very doubtful how many of these taps will be delivering water. □

A.C. and R.F.

Water and health

by Dr Letitia OBENG

Disease and malnutrition not only cause untold human misery throughout the developing world, they also represent a serious constraint on development by wasting human resources. Clean water is the first step to the elimination of many debilitating diseases, and better water management can mean higher crop yields, reducing the effects of malnutrition. Put simply, clean water means better health and less malnutrition (1).

With a few exceptions, the basic elements of air, water and food are vital for the continuity of all forms of life.

Water, in an indirect way, determines the continued availability of the other two basic life needs. It is essential for plant growth and photosynthesis which replenishes the air; it is also a key factor in agriculture and food production. Wholesome air and adequate food are basic human needs for a satisfactory state of health.

Water is the earth's most abundant resource, available in different forms and qualities in the oceans, icecaps, lakes and rivers, the atmosphere, and the earth's soils, to an estimated volume of about 1.5 billion km³ (= 1 500 million km³). Only 3% of this amount is freshwater. A still smaller portion of this is generally available for use by man. Theoretically the quantity is adequate to satisfy demands but, many constraints placed on it through different agencies, the most prominent man himself, create grave availability and supply problems.

Indiscriminate contamination

It is indeed a sad fact that the same sources which provide us with water are subjected to deliberate and indiscriminate contamination with filth and waste; and, on every continent, within developed as well as developing countries, water quality degradation in turn creates problems with water availability and supply especially for human and domestic use. A number of lakes and rivers have now exceeded their acceptance capacity for wastes, and the quality of many smaller rivers, ponds and coastal lagoons like those in West Africa has deteriorated.

The relationship between water of unsatisfactory quality and human health is a direct one. Water contaminated with chemical substances such as mercury and other toxic metals is a major threat to health and life, not only of man but also of ed-



Malnutrition

ible aquatic organisms which are either killed or become a store for various chemicals and toxins.

Where water treatment facilities are available, direct consumption of untreated water may be avoided. But such a facility is available for only a limited percentage of the world's population. WHO has estimated that 2/3 of the population of the developing world has no access to safe water. For the majority of rural dwellers, drinking and domestic water, obtained from untreated surface waters, wells and boreholes, is of doubtful quality.

A number of disease agents which infect man are carried by water sources. Furthermore, as a result of unsatisfactory human waste and sewage disposal systems, untreated water sources are invariably contaminated. WHO estimates that in urban areas in the developing world, about 75% of the population have reasonable sanitation facilities. In the rural areas, waste and human excreta disposal systems are still most unsatisfactory.

A large number of enteric diseases are transmitted to man directly or indirectly through contaminated water. Cholera, which is capable of spreading like a forest fire infects directly through water contaminated with faeces or vomitus of patients

FAO photo: Pierre Pittet

(1) This article is part of a press briefing given by Dr Letitia Obeng of the United Nations Environment Programme in preparation for the UN Water Conference. Dr Obeng is Ghanaian.

and it kills thousands. It is common in Asia and recently it has invaded Africa.

For most of the other enteric diseases, the causative agent occurs in faeces or urine or through nose and throat discharges but water may be indirectly involved in the transmission to healthy persons. The typhoid and paratyphoids caused by the salmonella group are of this type. The dysenteries, (bacillary, shigellae, and amoebic), diarrhoeal diseases due to *E. coli* and some parasites also belong to this group and are indirectly propagated through use of contaminated waters. By and large, disease agents which enter the body by an oral route may use water indirectly at some stage to gain entry. The enteric diseases affect large populations in tropical and sub-tropical regions often reaching epidemic proportions.

Guinea worm is a parasitic infection which is directly acquired through drinking pond water containing infected cyclops. There is really no excuse for dracunculosis. And yet in some rural areas there may be whole villages where infected children and adults carry one or more guinea worms for several weeks and months. This, like the enteric diseases, can be avoided through improved water supply and sanitation facilities, intensive education on their effective use, and an even greater and determined effort to use them.

Breeding grounds for disease

Apart from the enteric diseases which are due to direct or indirect consumption of infected waters, there are others which require water sources for the maintenance of intermediate hosts and transmission agents. For some of these agents, surface water is obligatory for the completion of their life cycles. Mosquitoes, which are closely dependent on water for breeding, are responsible for the transmission of malaria, yellow fever, dengue fever, bancrofti filariasis and other diseases. Many mosquito species transmit arboviruses, some of which, like the Japanese encephalitis and the St. Louis encephalitis, cause human disease.

Malaria is the most widespread and worst killer of all parasitic diseases. It is still highly endemic in all tropical Africa, parts of Asia and South America. On a world basis, 343 million people currently live in endemic areas and 150 million cases are recorded annually. In African countries, 12.6% of all patients are malaria cases. And every year one million children under the age of 14 years die as a result of the disease.

Mosquitoes breed in stagnant pools and small collections of water; they also breed along margins of large reservoirs and irrigation schemes, and they are associated with other river

Sprinkling life and spraying death

Lesotho: teaching the young the importance of water



FAO photo Pierre Pittet

Liberia: are insects or insecticides the greater health hazard?



FAO photo G. Tartoli



WHO photo

River blindness: "probably the most cruel" of water-borne diseases

basin development projects. In almost all cases, they find suitable habitats as a result of unsanitary conditions and inefficient water resource management.

Schistosomiasis, another water-associated health problem, is essentially a disease of rural communities. The schistosome worm with its complicated life cycle must use an intermediate mollusc host for which an appropriate aquatic habitat is obligatory. Pools, ponds, lakes, rivers, and water development projects and especially artificial dams and irrigation schemes provide the required habitat conditions for the vector. With unsatisfactory sanitation and constant contact with rural water sources, infection is easily accomplished in rural dwellers and agricultural workers. WHO records show that in its form *S. japonicum*, the disease is found in parts of the Philippines, Thailand, and the Lower Mekong Basin. It used to be a serious problem in China where 100 million people were exposed to infection but it is now successfully under control and no longer a public health problem. *S. mansoni* and *S. haematobium* are endemic in over 70 countries in Africa, the Middle East, the

Caribbean and parts of South America. A recent estimate (which is most probably an underestimation) records a global figure of infected persons of about 200 million.

If rural areas had safe and adequate water supplies for drinking and domestic uses (including laundry and bathing) which kept people out of contact with rivers and other natural resources of water; if they had satisfactory excreta and other human waste disposal systems which prevented contamination of such waters and similar sources; if such waters and other habitats could be prevented from supporting the vector snails, schistosomiasis would be one disease less in the group which threatens health through water sources.

Filariasis is also a complex of water-related diseases which not only kill but humiliate and cause untold unhappiness and misery. In bancrotic filariasis, lower limbs are disfigured and made useless by elephantiasis; men are afflicted with hydrocoele and women develop over-enlarged breasts. More than 250 million are infected.

Guinea worm, already mentioned, is also a filariid worm re-

corded in about 10 million cases. Onchocerciasis is perhaps the most cruel of them all. River blindness occurs in the Volta basin in West Africa and in Guatemala in localised communities where up to 10 percent may be infected, among them children under 10 years. *Simulium damnosum*, the intermediate host, must have running water to breed. Such water is found in valleys where fertile soils are available for subsistence farming. Invariably such valleys become deserted as people flee the vicious sites of the fly. But the disease continues to take its toll since the fly can travel long distances, and, in some villages, about 50% of the older males may be blind.

Trypanosomiasis and many other diseases have an indirect relation with water and aquatic ecosystems.

It seems fairly general that in an inhabited rural area, the chances of natural water sources being free from disease causing agents are rather slim. Millions of the world's population live in breeding areas which expose them to the bite of flies. WHO estimates that only 313 million out of 1 419 million people who live in rural areas in developing countries are served with water and therefore removed from such breeding areas.

Malnutrition

Apart from the severity of enteric and communicable diseases which justify the need for establishing a satisfactory relationship between man and water sources, malnutrition has an indirect link with shortages of food whose production is influenced by inadequacies in water supply. Vast areas of land are semi-arid with uncertain rainfall and hardly any water resources. Where it is possible to undertake irrigation to increase crop yield, modification of ecosystems and inefficiency in management increases disease-transmitting mosquitoes and snails.

Over-use is increasing the pollution of the River Niger



FAO photo M. Réme

These disease vectors are associated also with fish and farm ponds and therefore have access to people. Clear and safe water will mean improved health and better life quality. It will also potentially mean increased food production.

Inadequate rural finance

When we consider the realities of the situation, providing water for all requires enormous financing. It also needs adequate manpower for the implementation of any national policy and the achievement of any targets set, and it requires a popular involvement in any programme and this means effective communication with the community. These are the necessary elements to support any national plan.

Financing is a difficult problem which has to be faced. WHO has estimated that between 1971-75 the total investments made in water supply and sanitation in developing countries amounted to \$13 250 million for the urban areas, but only \$2 250 million was invested in rural supplies, and of this only \$200 million was outside investment. Since the countries which are hardest hit are themselves investing in water projects, the noble thing to do would be for outside aid also to increase. Otherwise, the health and water situation will not get any better. Simple principles and technologies could be used. Particularly we can stress the cleaning of waste water by natural means using oxidation ponds, microbes and other measures, which will provide additional water for re-use; it will also protect water resources from contamination with the waste water.

Development projects which are necessary for life quality improvement ironically tend to initiate or aggravate some public health problems. Tropical dams contribute to the spread of schistosomiasis but they are needed for hydropower. Irrigation schemes, especially where perennial, produce suitable conditions for the spread of schistosomiasis but they are needed for food. According to Prof. Van der Schalie, there was a rise in incidence of bilharzia within 3 years of perennial irrigation and, from 4 locations the increase was of the order of 2-75%, 7-50%, 11-64% and 20-44%.

An end to complacency

Among the people with unsatisfactory water supply, it is commonplace for a person to suffer from 3 or more of these water-related diseases—for children to have guinea worms sticking out of their legs and backs, for children to be emaciated through repeated dysenteric diseases; for children to watch their parents die from cholera; for children to have to walk several miles to scoop water from a dry river-bed and not even have enough for personal hygiene. The whole international community from both the developed and developing world has a responsibility to do something. We cannot any longer afford to be complacent about rural water supply; we cannot afford to ignore deliberate discharge of untreated or even partially treated sewage into the limited amount of water available. We cannot pretend not to notice that there are people who do not have easy access to a share of water.

We must accept that good water is an important milestone on the road to good health—and everyone is entitled to good water and good health. □

L.O.

The United Nations Water Conference

The UN Water Conference, held at Mar del Plata in Argentina from 14-25 March 1977, was given the task of finding ways of implementing the 1976 Habitat conference target of water for all by 1990. The Secretary-General of the Conference, Yahia Abdel Mageed (Sudan) was asked by the "Courier" for his view of its objectives.

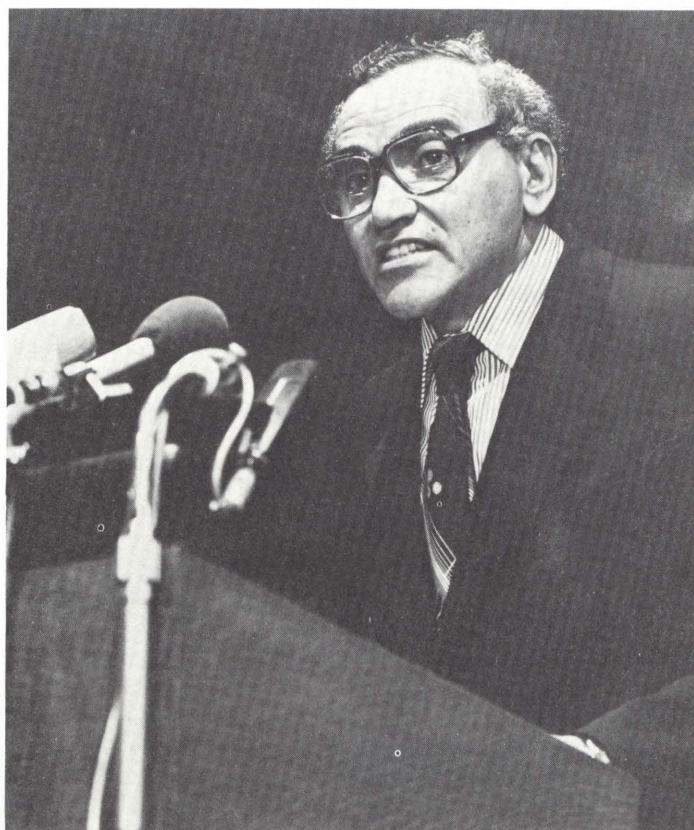
— The Habitat conference set a target for solving the community water supply problem by 1990. This problem was referred to the Water Conference, so we had to prepare an action plan to answer the question of how to achieve that target (*). We have shown the true dimension of the problem. The governments have now to undertake action to achieve the target. We also considered the food production targets which were laid down in 1974, for water plays an important part in these. We have considered what we must do in the development of water to achieve the food targets. We have too, been looking at capabilities, at the transfer of technology, of the need for funds in the developing countries. We believe there are a lot of capabilities in the developing countries themselves which have to be identified and mobilised, so that they can play the major role with the help of assistance from outside.

Political will

▶ *You speak of mobilisation, is it in your view then the lack of political will which needs to be tackled?*

— This is an important issue and we hope that there will be an expression of political will in the wake of the conference. Priorities have to be set as we are now programming everything until the end of the century. We would like to solve the food problem, we would like to provide water, everything is now planned to the end of this century. But these problems are immense. We need cooperation, we need coordination and we need the will of the governments. And we expect that the developing countries should make the biggest effort and decide the proper priorities. I hope that with the realisation of all these problems that the conference will lead to down to earth plans for action

(*) The target set by the Habitat conference (the United Nations Conference on Human Settlements, Vancouver, Canada, June 1976) was "with realistic standards for quality and quantity, to provide water for urban and rural areas by 1990, if possible".



Vetten-Amsterdam

Yahia Abdel Mageed
Secretary-General of the United Nations Water Conference

A joint effort by all the UN agencies

▶ *How will this major effort be organized?*

— With regard to institutional arrangements on the international level within the UN system, we have today more than 12 agencies working on water, because water cannot be enclosed in a single compartment. We cannot create an institution for water because it is unlike other resources—we need water for agriculture, water for industry, water for energy, water for water supply, water is part of all sorts of social and economic development, and therefore what is really needed, with this immense programme which has to be implemented is an effectively coordinated effort, at the national and international level. The problems are beyond the capacities of any single agency—the FAO alone cannot solve the problem, the WHO alone cannot solve the problem, UNESCO cannot undertake any more than the training. So there must be a joint effort by all the UN agencies.

35 000 experts in 15 years

We also need new attitudes, in training for example, where one of our investigations on the manpower required for agri-

culture, for food, and for irrigation, indicates that we shall need over the next 10 to 15 years some 35 000 technicians and professionals. We have to adapt our educational systems to be able to produce such a number. It is with these matters that I hope we shall arrive at concrete action and avoid the political confrontations which have marred the effectiveness of a number of international conferences. With the realisation of the importance of the problems we should be able to create a good atmosphere of cooperation between nations.

\$9 000 m a year

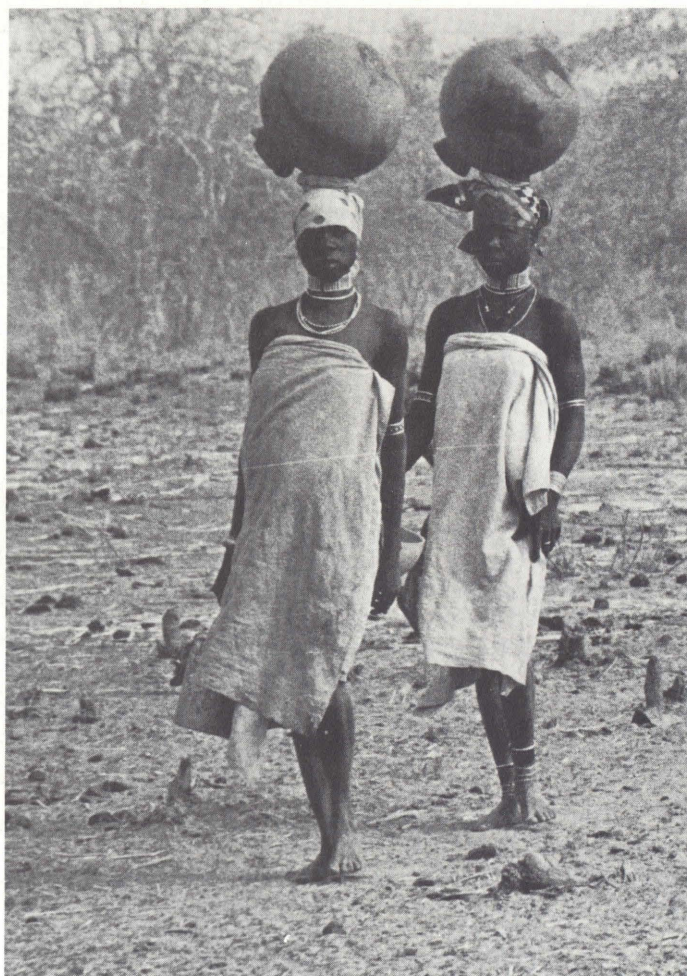
► *How much of a barrier is finance to the attainment of the 1990 target?*

— In urban water supply we need twice the investment we had before. In the rural areas it is four times. In figures, according to the assessment we have made, what is needed is about \$150 billion up to 1990 to solve the problems of water supply. That is about nine billion a year. To achieve the full targets in irrigation it became clear that we needed to increase the irrigated area in the world by 22 million ha, and we need to increase the productivity of existing irrigation in something like 45 million ha. We need to improve drainage in rain-fed agriculture, which is producing food on about 80 million ha. Here we need 100 million ha to achieve the food targets. All this needs money, and the investment seems big when you talk of sums like \$150 billion. But when you see what expenditure is made in other areas, like armaments, it isn't so great. It is not that the money is not there, it is, but it is being spent in other ways. If money can be directed to other causes, it can make for a happier and more prosperous living for the people of the world.

Technology: transfer equals training

► *You have spoken of finance and the manpower needed, but what of technology—is new technology needed to reach the 1990 target?*

— The technology of water supply is there. But you need the people who can understand it, who can maintain the technological equipment produced for irrigation or water supply. Therefore training and the transfer of technology itself are important. And what is the transfer of technology? It is not something you can put into parcels and send out. Transfer means training. It means you give the people the knowledge to erect, to construct, to maintain, to operate and even to manufacture some of the simple things, and this is the real transfer of technology, the widening and broadening of training. We need new ways of training, not the old system of scholarships. We need to instruct on the site itself, rather than sending people from developing countries to developed countries. I'm not saying none should go, but for the mass production of technicians, especially at the intermediate level, we have to create the facilities to do the training on the site to raise the number of technicians to a level which matches the problems we are solving.



“The energy of the people is dissipated on going and getting water every day”

An investment on a huge scale

► *Are you personally optimistic about reaching the 1990 target, and if you are, what effect do you think it would have on the quality of life of the vast majority of the world's population who at present live without proper water supply?*

— I come from a country where the energy of the people is dissipated on going and getting water every day. Liberating their energy to do more economic things, more agriculture, will definitely lead to greater prosperity. People look on water supply as a social benefit, but the real benefit is economic. Water supply has the biggest return in economic terms, because you can liberate the energy of people and turn it towards more productive activity. A large section of society, the women, spend much of their time carrying water. This is apart from the diseases which cause lost time at work. In the Sudan for example, in the irrigated areas 30-50% of people have to go to hospital at some time because of water-borne diseases. So investment in water is much wider, it is investment in real economic development. □

Interview by Ian PIPER

MAR DEL PLATA

The results of the UN Water Conference

The UN Water Conference, attended by 116 countries, 62 non-governmental organisations and 33 inter-governmental organisations, ended on 25 March by adopting a series of recommendations to be known as "The plan of action of Mar del Plata". In all 115 speakers contributed to the general debate, while two committees considered on the one hand, water resources assessment and water use, and on the other, planning, management and institutional questions.

The conference's secretary-general, Yahia Abdel Mageed, opening the debate on 14 March, listed four areas meriting priority attention: improvement of community water supplies; self-sufficiency in food production through such means as expanding irrigated land; pollution remedies to end the rapid diminution of available supplies of good quality water, and a more effective framework for harmonising the interests of countries which shared water resources. The government representatives described the water resource problems of their countries and outlined steps taken or planned to deal with them. Many speakers mentioned the need to obtain and exchange more data on water resources, to develop effective planning methods, to give water resources development an important position in overall-development plans, to encourage cooperative efforts among countries sharing rivers or other water resources, and to train personnel in skills needed for water supply management.

On the question of international measures, there was general agreement that the efforts of various international agencies working in this field should be better coordinated. A number of developing countries called for the creation of a special fund to accelerate water resources development. The developed countries, as well as some developing countries said more effective use of existing machinery and funds would be preferable to the creation of new funds or organs.

A call for action

A plan of action containing detailed proposals to avert a future water crisis was agreed. The recommendations stress the

role of development and administration of water resources as a key factor in efforts to improve the economic and social conditions of mankind, especially in developing countries. The conference endorsed the aim set by the Habitat conference last year to provide safe drinking water and sanitation to all people by 1990. It urged national and international efforts to reach this goal and proposed an international drinking water supply and sanitation decade for 1980-1990.

The conference was characterised by virtual unanimity among the delegates from 116 countries on the need for more intensive national, regional and international measures to make the best use of water resources and to plan well ahead in order to exploit available supplies. There was also recognition that massive amounts of money are needed to carry out the measures called for in the conference recommendations. In the field of water resources assessment, management of supplies, sectoral uses of water, environmental aspects and flood and drought problems, the conference said it was necessary to strengthen local services, train personnel, improve planning methods and achieve greater coordination among authorities.

More funds needed

The need for large-scale assistance to developing countries to supplement their own efforts was also emphasised in conference resolutions. It was recommended that more money should be made available to United Nations organisations, particularly UNDP, for financing of water resources development. The UN Secretary-General was requested to submit a study to the next General Assembly on increasing financial resources through the existing organisations. A proposal before the conference for a new special fund for water development lacked solid support among the developing countries and was opposed by the developed nations.

Water for agriculture was another major concern of the conference and the action programme therefore called for the improving and extension of irrigation and rainfed agriculture and for the protecting of agricultural land from flooding and waterlogging. The conference also called for action to develop technologies requiring less use of water in industrial processes and economic methods for recycling water. It also made anti-pollution recommendations, and asked countries to remember the recreational and esthetic value of streams and lakes.

Dr Mageed, in a closing statement, emphasised that the conference had achieved the purpose and objectives for which it was conceived and organised. The conference "has created a new awareness of the dimensions of the problems in the water sector, a new consciousness of the need for unified action and a sense of new commitment", he said.

Conference president Luis Urbano Jauregui (Argentina) said in his closing remarks, "we have contributed to awakening the international community to a new reality with regard to water", which he described as "a heritage of mankind". □

TANZANIA

The rural water supply programme

by F. K. LWEGARULILA ⁽¹⁾

National and regional planning of water resources is essential if water supply is to complement other development objectives. Tanzania is one country which has adopted a national water supply policy as an important aspect of its rural development programme. Great emphasis has been put on rural development ever since President Nyerere's Arusha declaration, and here one of the men involved in that programme, F. K. Lwegarulila, explains the role that water has to play.

More than 90% of the people in Tanzania live in the rural areas. The development of Tanzania is tied up with their development. This makes the supply of water to the rural areas one of the most pressing and difficult tasks facing Tanzania.

Most people living in towns who have houses connected to the water supply system do enjoy a constant supply of water except when the supply is temporarily disrupted due to some reason. This causes temporary inconvenience to the consumer connected to the affected main. In the rural areas of Tanzania, as well as in other developing countries, it is not a question of temporary inconvenience arising from the disruption of water flow in the main, but of perpetual hardship. Not only is the water insufficient but its quality as well is generally questionable. The majority of the people living in rural areas are still using natural sources whose quantity and quality fluctuate seasonally and from year to year. Many of the sources dry up.

To reach some water sources considerable distances have to be covered, making fetching water time-consuming and difficult. The importance and urgency of providing water to the rural areas was taken seriously in Tanzania after independence, and by 1971 the government was instructed by the party to embark on a rural water supply programme with the objective of providing clean, adequate and potable water to the rural ar-

reas by 1991 so that everyone in the rural areas would have ease of access to a public domestic water point. Ease of access means that the distance to be covered from the consumer's house to the public domestic water point is such that the time taken to fetch water would not entail great hardship. In Tanzania such a distance has been taken as one quarter of a mile. A careful analysis has shown that for a consumer to get his daily water requirement he would have to spend 2.8% of a normal day's working time when the water source is situated at 0.25 mile from the house. However he would have to spend 67% of his normal day's working time in fetching water if the water source is 6 miles from his house. Thus there is considerable saving in time and energy when water is situated near the consumer's house.

Water like any other public service can be delivered more

Village water point, Hombolo (Tanzania)



(1) Principal Secretary in the Ministry of Water, Energy and Minerals, Dar-es-Salaam.

economically to a community whose population is concentrated in villages rather than scattered in isolated individual settlements. To accelerate rural development and to ensure that essential public services like education, health and water were made easily available to the rural community, Tanzania embarked on persuading people to group together into villages of reasonable sizes. By the end of 1975 the process was virtually complete so that most of the people in Tanzania now live in villages which could be easily served with essential services.

With the new village set-up the water problem became more glaring. The targets for the rural water programme had to be revised to cope with the situation created by development. It became evident that in order to ensure uninterrupted economic activity in these villages, each village had to be provided with a source of water lest its people spend considerable part of their time in a daily search for water. The revised objectives of the rural water supply programme at the end of 1975 were summarized as follows: The immediate objective is to provide a water source to every village by 1980. The ultimate objective is to provide water to the rural areas so that every one is at ease of access to a public domestic water point by 1991.

The above commitment calls for efficient institutional arrangements to carry out the programme. Such an institution requires sufficient trained manpower at all levels, necessary facilities such as transport, equipment required for the work, funds to pay for the services rendered and above all participation by the beneficiaries. Tanzania is divided into twenty regions. Each region has a regional water office which is responsible for the execution of the water projects in its region. The Ministry of Water, Energy and Minerals assists the regions in

the implementation of their programme and implements directly water projects which are beyond the capacities of the regions.

The programme as summarized above gives an indication of how much commitment Tanzania has given to rural water supply and to remove the constraints that lie in the way of implementation such as lack of trained manpower, equipment and sufficient financial resources to back up the programme.

A rural water supply programme is not a single mammoth water project to be executed in twenty years by a series of projects each unique in itself. One project may serve more than ten villages covering a population of over 200 000 with a complex articulation system, such as the Makonde water supply scheme in Tanzania. Another may be a single shallow well fitted with a hand pump serving a small village of only a few families. The guiding principle is: to try and provide water to every village at minimum cost. Apart from the selection of the source, the quantity and quality will determine the cost of the system. For the time being, the quantity has been fixed at 30 litres per head per day. As far as the quality is concerned, local water standards for rural water supply have been drawn up so that the water provided to the rural areas is not injurious to health, though it may not meet the rigorous international standards such as those set by the WHO in 1963.

The most intricate problem in the provision of water to the rural areas in a country like Tanzania, is to locate a suitable source to provide water of adequate quantity and quality and at minimum cost. It is necessary to have sufficient data on the availability and distribution of water all over the country to enable the identification and selection of suitable water sources for the villages to be served. Tanzania had to embark on a country-wide Water Master Plan to assess the quantity, quality and distribution of available water resources and identify competing demands at present and for the future. It was hoped to devise an equitable distribution of water resources to meet these demands, paying special attention to the supply of water to villages. The Water Master Plan is being worked out on a regional basis.

Due to lack of funds and trained manpower to carry out this highly specialised survey, Tanzania appealed for and got an encouraging response from several friendly countries which have assisted in carrying out the Water Master Plan for the particular regions. These included:

Netherlands: Shinyanga Region
Sweden: Mara, Mwanza and West Lake Regions
Finland: Mtwara and Lindi Regions
Federal Republic of Germany: Tanga Region
Japan: Kilimanjaro Region
Canada: Coast and Dar-es-Salaam Regions
Australia: Singida Region.

Arrangements are being made with the World Bank to finance the Water Master Plan for Tabora Region. This leaves seven regions whose plans have yet to be worked out.

While Water Master Plans are being worked out, the programme of providing water to the rural areas is going on at the same time. Tanzania's efforts are being supported mainly by bilateral assistance, the major contributor to the programme being Sweden followed by Federal Republic of Ger-

Rural water tower in Tanzania





"The immediate objective is to provide a water source to every village by 1980"

many, Netherlands, Finland, Australia and China. Keen interest has been shown by WHO and IBRD who jointly assisted Tanzania in carrying out a water sector study in 1976. The findings of the report may help in the implementation of the rural water supply programme.

It is worthwhile to mention that up to the end of 1975, 25% of the population in the rural areas had been provided with water. Rough analysis show that due to the heterogenous nature of the topography and the distribution of water all over the country, the sources of water for the rural areas in Tanzania is likely to be of the following mix:

- 20% shallow wells
- 40% boreholes
- 20% surface sources
- 20% will continue to use unimproved sources.

If the objectives of the Rural Water Supply Programme are to be achieved, it is estimated that \$70 000 000 will be required annually for implementation of the work. It will not be possible for Tanzania to allocate such a level of funds to the rural water supply programme without seriously disrupting other important undertakings having an equal demand on

scarce financial resources. More bilateral, multilateral and international financial support is urgently required to supplement locally available funds allocated to the programme.

Lastly, it should be pointed out that the success of the rural water supply programme will depend on the participation of the beneficiaries themselves. Their full involvement at each stage: planning, construction and maintenance, is required. The villagers have often participated in providing labour for the digging of pipeline trenches, breaking stones for aggregate and for the construction of storage tanks. However, to ensure uninterrupted water supply to the community, their participation in the operation and maintenance is even more necessary than for the planning and construction phases.

In Tanzania, water provided through house connection is paid for, water provided through a public domestic point is free. Urban water supply is characterised by house connections while rural water supply is characterised by public domestic points. It is hoped that with the formation of village water supply committees the participation of the beneficiaries in the operation and maintenance of village water supply will be achieved with the minimum of difficulties. □

F. K. L.

Kenya's national water policy

Kenya is a country of contrasts, with fertile highlands in the west and vast arid areas in the north-east. The national water policy which is now being developed has to take account of these different conditions. The "Courier" asked the minister responsible for water development, Dr Julius Kiano, how high a priority water policy was in Kenya's overall development planning.

— It's a very, very high priority indeed. I am happy as the minister for water development to know that the government as a whole and the treasury in particular have given us a very high priority in terms of finance, in terms of personnel, in terms of the demands that the members of parliament themselves keep on making on this ministry for water for homesteads, for irrigation, for the production of hydro-electricity and for livestock so that we can be exporters of beef and other meat products. The government has given high priority to water development and we created a special water ministry for that reason.

► *In March the United Nations Water Conference examined ways to reach the UN objective of "water for all" by 1990. Do you think Kenya can reach that target?*

— Well, let me take this opportunity to express the appreciation of the Kenyan government for the great good will shown to us by friendly countries in matters of water development. The European Economic Community has shown a lot of interest and is going to give us considerable aid. Both members of the EEC, and others outside it, such as Sweden, Denmark, Norway, the United Kingdom, West Germany, France, Canada, the United States, Belgium, and the Netherlands, have all made some contribution to Kenya's water development. This has enabled us to carry out bigger projects than we had hoped before. At the Habitat conference last year, the date of 1990 was mentioned. My predecessor had spoken of the year of 2000. However, I think this target is not a dream, I do think it is possible. I say this because although we have a very large area which is dry, nevertheless we have water resources in our country.

Our main problem is how to get water to the areas without water. We have hardly made any use of Lake Victoria, which

is a fresh water lake; we have permanent rivers mainly flowing to the Indian Ocean and we are now busy examining the sub-surface water reservoirs to see how much we can get from bore holes. I think that with adequate finance and personnel, the matter of distributing water to those areas that require it can be achieved by 1990. Perhaps not every individual will get it, but at least to have water within a reasonable distance from every home or every farm can be achieved. Of course we know that as we are carrying out this policy, our population is increasing—we are told that it is more than 3.5% per annum—so we are working not only in terms of the current population, we also are taking into consideration the increase in population.

Dr Kiano: "Harambee has become one of the major forces for national development"



► *What are the major problems you encounter in carrying out that policy?*

— As I said, the first one is money, money is always the problem. But in addition to that we have very wide areas in northern and north-eastern Kenya with no rivers, except one small river near Madeira that flows from Ethiopia. In many of these places we have to utilise bore holes, and the area to be served is often a limited one. We must also consider our weather. Some of the rivers have water only when it rains: perhaps we could capture that water, which comes during the rainy seasons, by having a series of dams so that the water can be utilised by the people until the next rainy season. There are also a number of semi-permanent rivers in these dry areas and one of the things I'm thinking about, is just how one can catch this water instead of it just flowing to the sea.

► *What are the main projects under preparation or being launched presently in this field?*

— The largest current project is the one on the Tana River which is estimated to cost about 150 million dollars. This will provide water for electricity; it will also provide water for irrigation along the river Tana, which is our largest river; it will also be utilised for homesteads in that area. That one is the biggest project for which the European Economic Community, the United Kingdom and the Federal Republic of Germany are the main financiers.

The second largest we have is in the coastal area. Mombasa is growing very fast and in addition to that the tourist industry is also expanding and the population increasing. With the assistance of the World Bank and the KFW (1) of Germany we have initiated a number of projects: one of them is going to get water from the Sabaki river in the north and bring it down to Mombasa. We have now discovered a large aquifer at a place called Tiwi south of Mombasa and there again we will get additional water for the coastal area. So that is also a major project.

► *Is it possible for you to assess the economic benefits, as a result of a healthier workforce and the freeing of women of the daily burden of carrying water, that "water for all" could bring to Kenya?*

— Yes, in fact you can already see it. There is a definite increase in agricultural production when water is available for irrigation and also if the people are healthy. There is no question of that at all. Secondly, on the coast a number of industrial projects have been slowed down or have not been started because of lack of adequate water. Therefore with the provision of water, there is no doubt that we could get an increase of industrial production not only in Mombasa but also in the smaller towns that are coming up as a result of economic development, for which we had not planned water supplies. We

have actually worked out a project known as the minor urban water supply scheme to provide the smaller towns with adequate water. This should improve the health of the people. When these services come, there is no question that the working capacity of the employee definitely improves. Within the family, if the mother didn't have to spend all day looking for water, the whole family would be better looked after. Therefore an overall increase in the standard of living results from the supply of water.

► *Apart from the economic importance, such water supply schemes involve also major social aspects. What is your view on these?*

— The women will benefit most socially from rural water supply. I say rural water supply because the population of this country is mainly in the rural areas. The people who have to draw water are usually, by tradition, the women. They have been extremely vocal in pressuring the government. When their leaders or members of parliament look at the plan of the Kenya government and see from the timetable that water may not reach their district for example until after 1980 or 1985 they immediately change their tune and say, all right, we shall do it by self help, we shall do it by "harambee" (1). Many harambee projects have been started: self-help by the people creates good morale and at the same time enables the government to supply bigger areas with water.

But problems arise with these harambee projects: they don't have engineers so they come to my ministry for people to design the projects. Then they collect money and even if they come from a relatively dry area the amount of money they will collect is not adequate and therefore they contact us again. Then they say to us "We have started this project on harambee basis, how about about the government taking it over now?" Initially such delegations were mainly women. You may not turn these people down and when the project is started, you can't leave it just like that. Therefore in our development estimates we always allow for a certain amount of finance to supplement the efforts of the people themselves, so that when a self-help project on water comes to us we can respond to their requests. First of all we give them engineers, but then they may ask for more "pipes" for example. I am happy to say that the Dutch government is among those governments who have agreed that part of their aid can go to supplement self-help projects in the rural areas.

You find that people become very involved in the overall development of the country because, once water comes, they say "Oh yes, we don't have a clinic here, we'll start one on self-help". People in this country have learned that by starting on self-help, they hasten the government's involvement in the development of their area and therefore our self-help or harambee movement has become one of the major forces for national development in this country. □

Interview by R.D.B.

(1) Kreditanstalt für Wiederaufbau, the West German development fund.

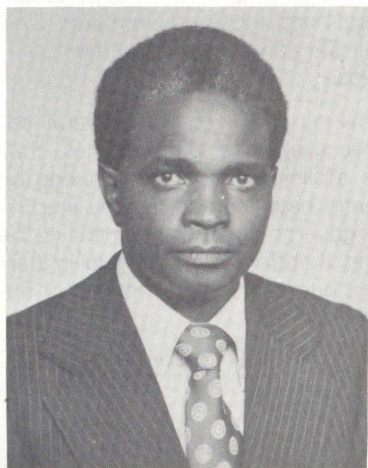
(1) A Swahili word meaning roughly "pull together".

Kenya: the Upper Tana Reservoir Scheme

The Tana River scheme is one of the largest projects presently under preparation in Africa. Its aim is to provide an integrated solution to some of Kenya's main development priorities, in this case water supply to rural areas and towns including the capital Nairobi, the provision of hydro-electric power to meet the needs of Kenya's growing industrial sector, the carrying out of large irrigation schemes in the Tana River Basin and the re-settlement of a large part of Kenya's rural population.

In June 1974 the Kenyan government created the Tana River Development Authority, an advisory board whose activities are based on an act of the Kenyan parliament and whose main concern is the optimal utilization of the Tana River basin's resources. However, according to its chairman, Mr G.W. Gichuki—recently also nominated chairman of the new Kenya Airways board—it is not merely an advisory body. The TRDA is also responsible for the preparation, the construction and the future management and operation of the Tana River scheme.

The scheme is expected to be entirely financed by Kenya and the EEC and cost 115 million EUA, Kenya's contribution being some 20% of this. On the European side Britain and



Mr G.W. Gichuki, who was recently nominated chairman of the new company, Kenya Airways, is chairman of the Tana River Development Authority which was created to carry out the overall development of the Tana River basin.

West Germany are providing bilateral aid in close cooperation with the EDF. In the future TRDA might also obtain a certain amount of supplier's credits.

Mr Gichuki said "Kenya has been very lucky with this particular grouping of donors since it has thus been dealing with people who know and understand each other and who have already established a well coordinated set-up of procedures and rules". The project should be finished by 1981/82 and so far it is on schedule. Once completed the scheme should considerably help Kenya's agriculture and speed up industrialisation. The scheme is also closely related to the second phase of the Bura irrigation scheme on the lower Tana River where the EDF should also make a big contribution.

The conception of the scheme and its main features are laid out in the following "scheme summary" prepared by the TRDA.

The Tana basin

The Tana is Kenya's largest river with a catchment area extending to some 100 000 sq. km. The basin represents a major contributory sector within the Kenyan economy, containing some 20 percent of the national population, a major proportion of the country's agricultural potential and providing the only major source of hydro-electric power generation within the country. (A brief summary of basin statistics is provided in the attached annex).

Taking figures for the year 2000, potential further demands on the river are:

- (a) public water supplies for an additional population of 7 million (includes 2.6 million in Nairobi City).
- (b) irrigation expansion, of up to about 100 000 hectares, aimed at reducing the existing and rapidly growing population pressures on rainfed lands (by year 2000 the agriculturally based population in the basin is estimated to exceed rainfed carrying capacity by 1¹/₂ million).
- (c) maintenance and continued expansion of the river's hydro-power potential (with completion of the now agreed Gitaru station, total installed hydro capacity will be 276MW: future developments could raise this total to some 800MW).

As presently engineered, the river is incapable of meeting these demands. Following completion of the immediately proposed 15 000 hectare Bura Irrigation Scheme in Lower Tana, physical water availability in the dry season will preclude all further new irrigation development in either the Upper or Low-

er Tana catchments. It will also mean that development of needed public water supplies will only be possible at the expense of reduced hydro-power production. Decisions to develop further hydro-power are also inhibited by a lack of security on dry season river flows.

The Upper Reservoir scheme

General concept

It is as a solution to this virtual barrier to all further development in the basin that the Upper Reservoir Scheme is proposed. The reservoir will provide large scale storage at the head of the hydro-power reach of the river, thus making it possible to release water to increase the dry season flows through the hydro-power stations and thence into the Lower Tana for irrigation abstraction. Maintenance of these improved dry season flows in the Middle and Lower Tana is possible even with increased abstraction in the Upper Tana, the apparent deficit being made good by the impoundment in the Upper Reservoir of the previous flood season flow.

Location and engineering

Following consideration of five alternative sites for location of the Upper Reservoir, a site immediately upstream of the ex-

isting Kamburu Reservoir has been selected as most suitable. Extensive materials testing and preliminary drilling have now been completed for this site leading to the proposal for construction as a zoned earthfill dam with a side spillway and a surface power house.

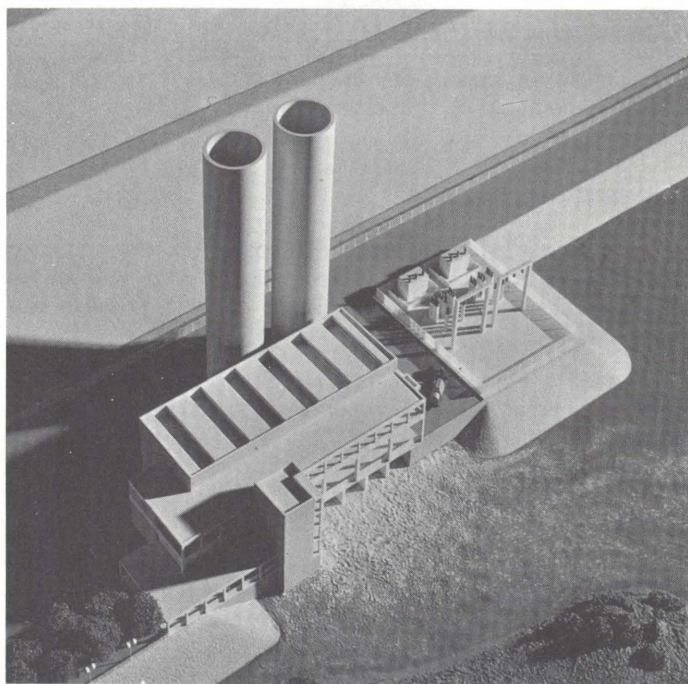
Main features of the proposal are as follows:

Storage capacity	1 500 million cubic metres
Surface area	approx. 12 000 hectares
Length of reservoir	approx. 44 kilometres
Dam fill volume	3.5 million cubic metres
Crest height over river bed	52 metres
Crest length	2 200 metres
Power plant	2×20 MW (Kaplan turbines).

Social and environmental factors

The area to be inundated by the Upper Reservoir presently contains about 1000 families with temporary occupation permits on the south bank, and small scattered unplanned settlements on the north bank. Present agricultural production is strictly limited by the unreliability of rainfall in the region. Thus, there will be no significant loss of agricultural production and the social problem of relocation of families, whilst of outstanding importance, can easily be overcome.

These factors, together with environment considerations are now being studied. Preliminary indications are, however, that the Upper Reservoir should have no adverse environmental impact either locally or within the overall river regime.



Model of the generating station which will help Kenya to extend its industrialization

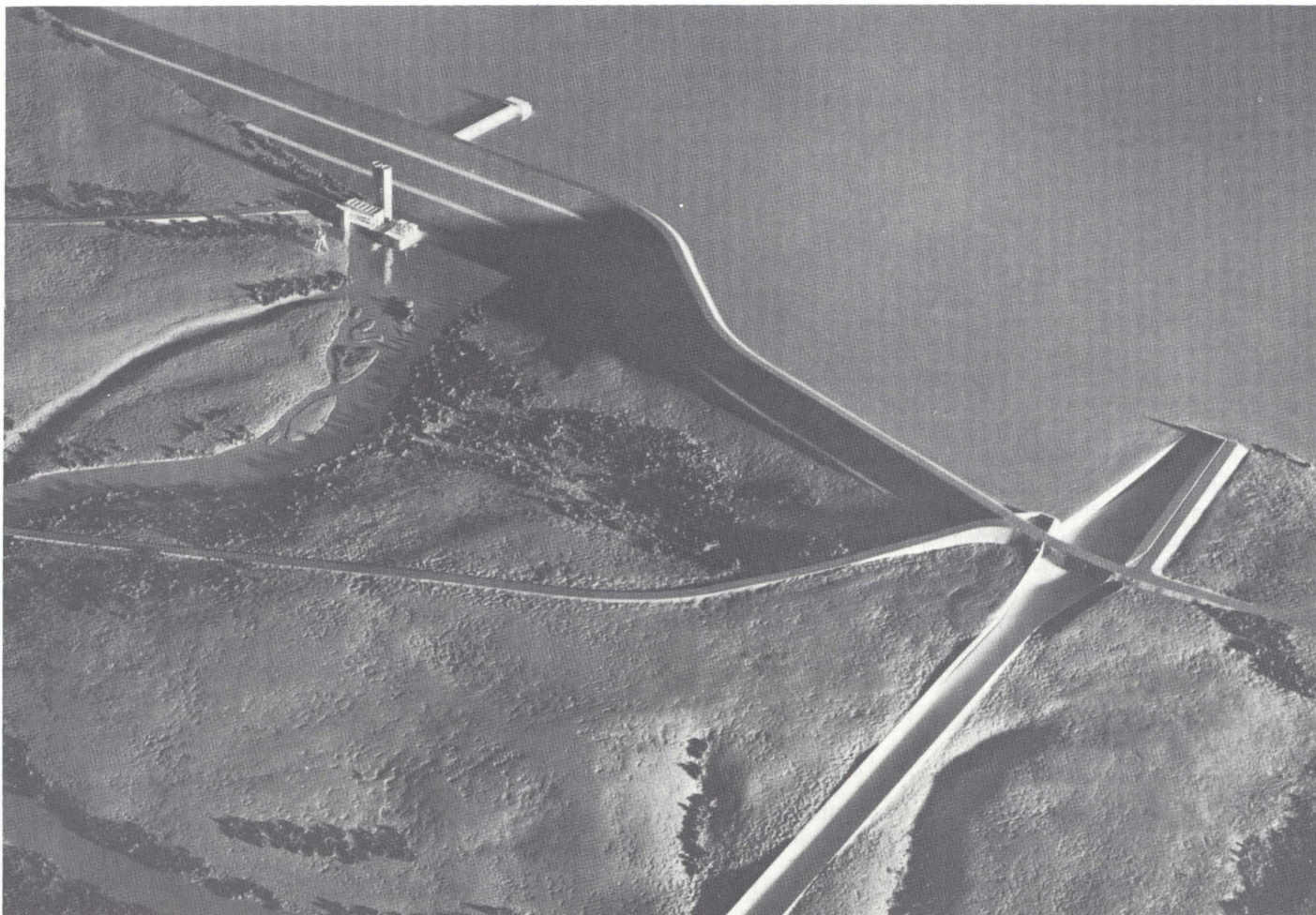
The Upper Reservoir benefits

Irrigation and public water supplies

Given that water must be reserved in the Upper Tana for future public water supplies—for an additional population of 7 million by the year 2000, and given a sensible minimum allowance for natural growth of existing Upper Tana irrigation abstractions, then the potential for further irrigation development in the basin is limited at present to implementation of the 15 000 ha. Bura scheme as immediately proposed in Lower Tana.

Thus, without the Upper Reservoir, no significant further irrigation development could be undertaken beyond that already proposed.

If an Upper Reservoir of 100 million cubic metre storage capacity were constructed, but otherwise no further development of the river took place after Gitaru, then additional irrigation development could be undertaken of a further 30 000 ha. in Lower Tana (in addition to Bura) and no further



TRDA model of the Tana river scheme as seen from the north

development in Upper Tana. Or a further 78 000 ha. in Upper Tana, with development in the Lower Tana very strictly limited to an additional 3000 ha. after Bura. Or there could be any sensible intermediate division between Upper and Lower Tana developments within these limits.

If construction of the Upper Reservoir were followed at some later date by development of the downstream reservoir sites at Mutonga and/or Grand Falls, then the Lower Tana irrigation potential could be further increased by an additional 53 000 ha. (See attached Table for summary of irrigation and public water supply benefits).

Power benefits

For the case of no further hydro-power development beyond Gitaru, the Upper Reservoir will provide increased hydro-power generation as follows:

Increase in firm power	= 60 MW
Increase in average energy	= 130 Gwh/yr in 1980/81 increasing to approximately 200 Gwh/yr from 1985 onwards.

Assessed on present day prices, this represents savings on power generation of the order of US.\$4¾-6¼ million per year.

Other factors

The reservoir offers favourable prospects for fish production and possibly for tourist and recreational uses. As yet, no monetary assessment has been made of these possible benefits.

At present, there exist increasing numbers of small scale irrigation schemes and rural water supplies serving the local riverine population of the Lower Tana and Tana Delta. The risk to which these schemes are subject in periods of drought will be reduced following implementation of the Upper Reservoir Scheme.

The same local riverine populations also practice cultivation schemes dependent on natural flood inundation. Flow regulation by the Upper Reservoir, in flood season, will be of a strictly limited nature not adversely affecting these cultivations. Indeed, the effect may be marginally advantageous through a reduction of the risk of crop inundation prior to crop harvesting.

Tana Basin Statistics

— Assessment of population trends.

	Present	Year 2000
Within Basin	2.66 million	5.1 million
Nairobi	0.75 million	2.9 million

(90% of within-basin population assumed dependent on agriculture in 1975, reducing to 87% in 2000).

— Assessment of public water supply needs.

	Present	Year 2000
Within Basin	1.1 m ³ /sec	3.0 m ³ /sec
Nairobi (from Tana)	0.8 m ³ /sec	5.2 m ³ /sec

— Assessment of population carrying capacity of the Basin under rainfed agriculture.

	Area (thousand ha) (small scale farms)	Capable of carrying population of:
High potential zone	720	2.1 million
Medium potential zone	1803	1.3 million
Low potential zone	4038	0.1 million
	Total	3.5 million

— Assessment of areas suited to irrigation development.

	Existing (ha)	Potential (ha)
Upper Tana	11 000	50-80 000
Lower Tana	15 000*	65 000

* Bura Scheme — proposed for implementation over next 7 years.

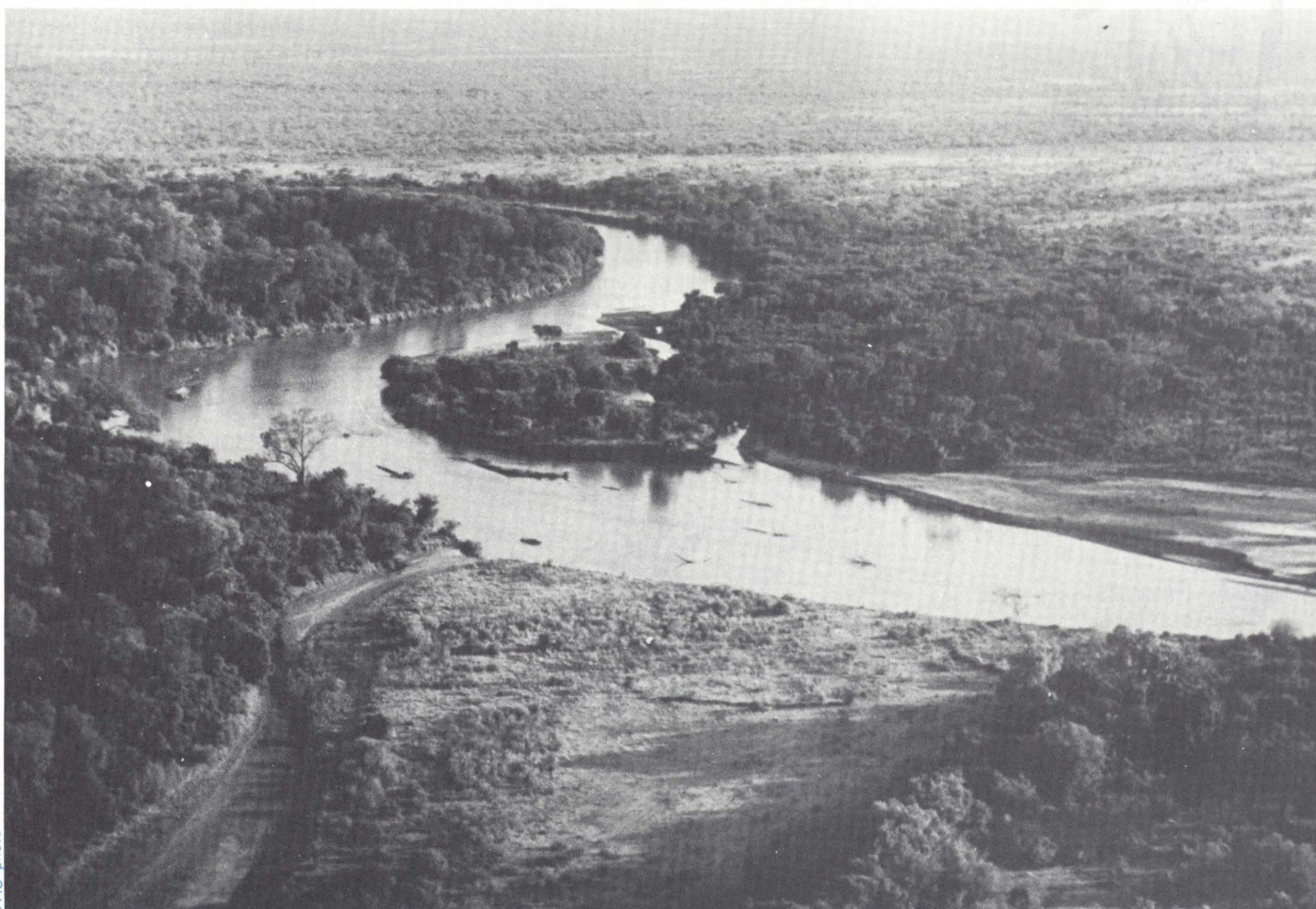
— Assessment of national power demand.

	At 9% per annum, growth		
	Present	Year 1990	Year 2000
Peak demand (MW)	200	741	1755
Average demand (MW Con.)	140	519	1228

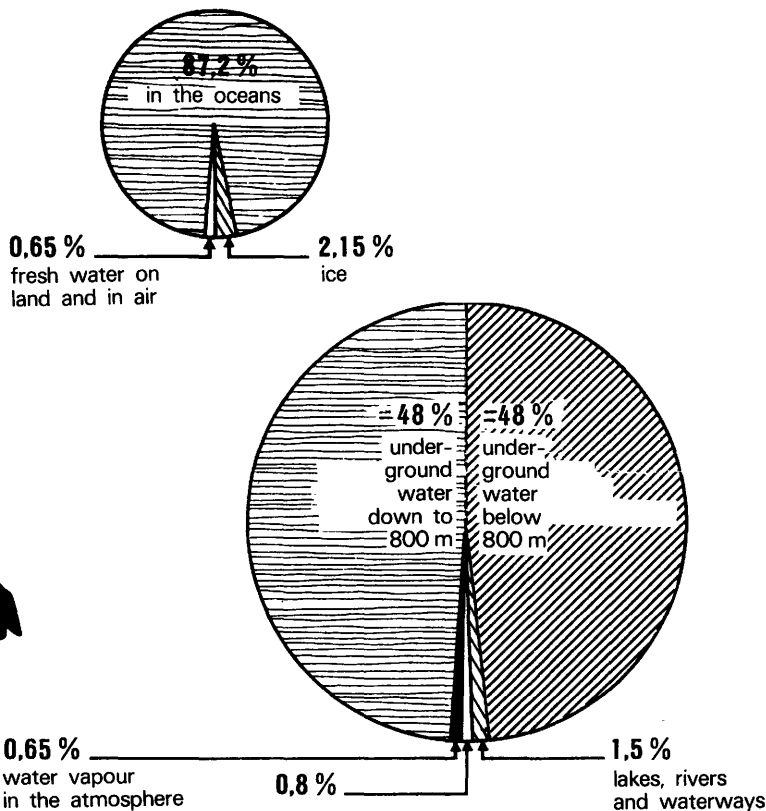
— Assessment of hydro-power potential (all on Tana):

	Capacity
Existing stations	120/142 MW
Immediately planned (Gitaru)	additional 134/200 MW
Possible future	additional 450 MW, or more.

The Tana River



THE EARTH'S WATER RESOURCES



Total volume of water on the earth is about 1 400 million km³. As the smaller circle shows, only a small percentage—2.8%—is fresh water. The big circle shows how the fresh water is dividend into underground water, runoff and drainage.

Some facts and figures on water

Eau, water, boda, agua... the UN water Conference in March brought world-wide attention to a problem which has been dealt with piecemeal by a number of aid organisations, such as the French Committee to fight Hunger which has financed and sunk hundreds of wells in developing countries from the Atlantic to the Indian Ocean and from the Sahel to India.

Yahia Abdel Mageed, secretary-general of the conference, launched an appeal for a world-wide assessment which he hoped would lead to a series of concrete proposals for UN action. "Only then can water resources be rationally used for the good of all countries and for the good of mankind." he claimed.

WATER AND HEALTH



Schistosomiasis

200 million cases every year



Filariasis

200 million cases every year



Onchocerciasis

20-40 million cases every year



Malaria

160 million cases every year



Gastro-enteritis

400 million cases every year



Reprinted from the French development magazine "Nations Solidaires", 42, rue Cambronne, 75015 PARIS

Product and country	Unit of production	Water needed (litres)
Bread, USA.....	1 kg	2.1 à 4.2
Green beans, USA.....	1 kg	9.3
Spinach, USA.....	1 kg	49.4
Tomatoes, USA.....	1 kg	2.2
Sausages, Cyprus.....	1 kg	25.0
Butter, New Zealand.....	1 kg	20.0
The following figures show how much water is used to produce certain foods:		
Lettuce.....	1 kg	25.0
Wheat.....	1 kg	1 500.0
Rice.....	1 kg	4 500.0
Eggs.....	1 kg	12 000.0

Irrigated land

Region	1962	1975	1985
	million hectares		
Africa south of the Sahara.....	1.1	1.6	2.1
Asia and Far East.....	49.5	75.0	102.7
Latin America.....	8.2	11.4	16.2
Near East and north west Africa.....	12.8	16.1	17.8
TOTAL	71.6	104.1	138.8

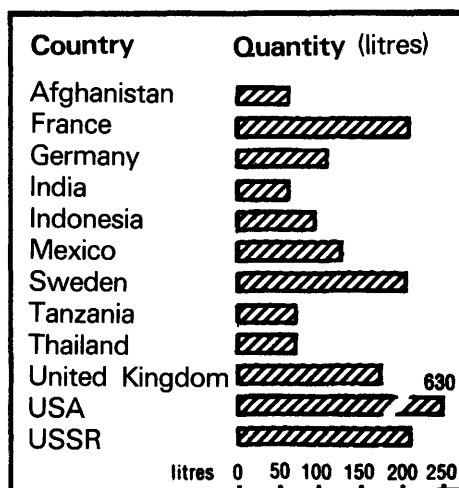
Source: Provisional indicative world plan for the development of agriculture (Vol. 1., FAO, Rome 1970, table 12, p. 70).

WATER AND HUMAN NEEDS

A 10-year study in Singapore has shown that the greater the domestic consumption of water, the smaller the occurrence of disease. It concludes that the minimum "social" amount of high-quality water per day seems to be 90 litres per head. The table compares the situation in various countries of the Third World and the industrialized world.

Sources: UNSTESA 38, Table 41, New York, March 1976. Verband der deutschen Gas- und Wasserwerke e.V. 1971.

Consumption of water per head for domestic uses in a sample of countries (from 1967).



WATER AND AGRICULTURE

Agriculture, with or without irrigation, is one of the main users of water. Agriculture and the food industry combined take up to 80% of a country's total water resources. The increasing demand for food is making itself felt via an increasing demand for water for crops and stock-farming, and, later on in the process, for the processing and distribution of food. In the USA, 25 litres of water are needed to roast one chicken; 14.5 litres are needed to make one litre of beer in France. Quantities needed for one or two products are set out above left.

* * *

The extension of irrigation to meet increasing demands for food does not necessarily mean that the demand for water will go up accordingly. Here again, it all depends on the choice of technology (if the country is rich enough to have a choice). In places like California, where water is expensive it has to be meted out carefully to each tree and plant through plastic tubes, a method which requires less water than flooding or ordinary watering.

Community aid for water development

The first three EDFs

Over the last 15 years, the EEC has contributed something like 283 million EUA to water development projects in the AASM and OTC (see Table I). Drinking water supplies have accounted for a large percentage (128.1 million EUA) of this amount, 78 million EUA going to town supplies and 50.1 million EUA to rural supplies.

The comparative trend of commitments in these two sub-sectors shows a shifting of priorities in the Associated States. Under the first EDF, 26 million went on rural water supplies, as against 14 million on town networks. Under the second EDF, commitments were 14 million and 25 million and, under the 3rd EDF, 10 million and 39 million respectively. There are various reasons for this change in emphasis, the main one being the demographic trends in major towns after independence. During the colonial period, water supply networks could more or less cope with the relatively slow increase in the urban population, but in the early years of independence governments were anxious to concentrate on the more neglected rural areas. However, the growth of the towns very soon forced

them to revise their priorities. Other economic factors (e.g. the generally low per capita investment needed to meet the minimal needs in rural areas) and financial factors (autofinancing of recurrent outlay being easier with town supplies) also encouraged this trend.

Particular attention was paid to water projects in agriculture (109 million was devoted to this). A growing level of funds was made available. This increasingly marked preference for directly productive projects was not confined to hydraulics. The general trend in successive EDF commitments was to avoid pushing up the relative share of infrastructure projects. This is because of the burden which operating and maintaining economic and social infrastructure places on public finances in developing countries.

Table II shows that Community aid is adapted to the individual needs in each area. The six countries of the Sahel (Mauritania, Senegal, Mali, Upper Volta, Niger and Chad), where water shortage is always an acute, and sometimes tragic, problem, have had 18.3% of total EDF commitments, a much higher percentage than the 10.6% that went to the other countries and territories. This was particularly noticeable as far as actual water supplies for the population were concerned, 11.5% going to the Sahel and 3.3% to other places.

There are tangible results from 15 years of Community aid to urban water supply networks. Sixty towns have been provided with supply networks (or extensions to existing networks), totalling more than 1000 km of piping and a daily production capacity upwards of 330 000 m³. Drainage and collection networks (90 km in all) have partially or totally improved sanitation in six towns.

Wells in the Mora Region of Cameroon

The EDF has financed the construction of 6 pools and 10 wells to partially overcome the water shortage in the region



Supply schemes for rural populations (Table III) have enabled 5 510 water points to be installed.

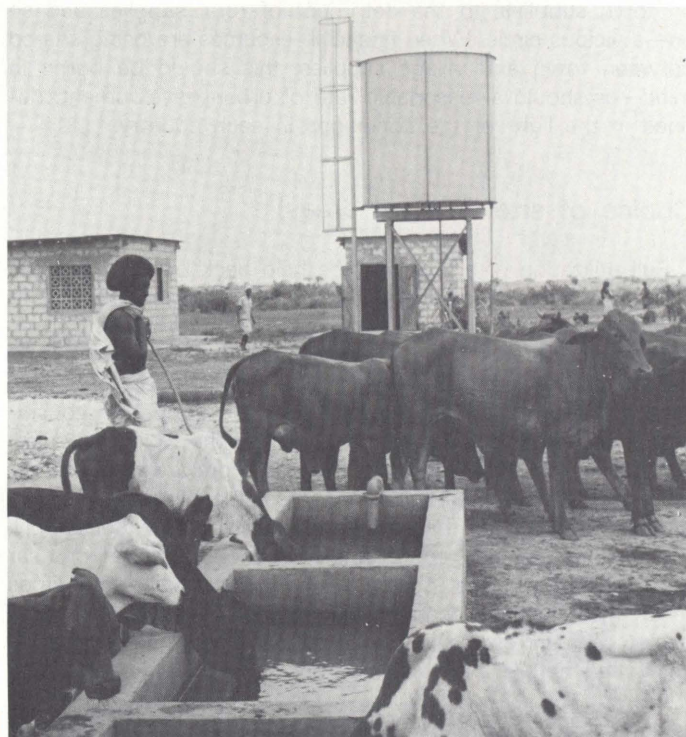
So there have been a good many water development projects, geared to meeting two separate needs:

- supplying water to capital or other major cities (e.g. Bangui, Bouar and Bambari, the three largest towns in the Central African Empire), which, apart from fulfilling a social aim, also helps industry and makes for optimal profitability of what is otherwise a costly investment to run and maintain;
- meeting the needs of the rural population, usually by well-sinking programmes (such as the one in Niger).

There was a patent desire to reach the poorest sections of the population in each case. This emerged, in the towns, from the provision of enough properly-placed public outlets to cut right down on the distance water had to be carried and from the evening out of the domestic water rate, so that the local authorities can cut the cost per m³ in smaller towns where resources are not so good. It emerged, in the country, from the fact that wells were sited so as to reduce water-carrying and meet the most urgent needs.

The social effect of directly productive projects in rural areas should also be mentioned. For example, if nomads settle round water-engineering installations (in Mauritania, Mali, etc.), they have easier access to education, medical treatment and so on and, therefore, to a hitherto unknown standard of living.

On the other hand it would appear that a social infrastructure project, such as a water supply system, can have a far greater effect on production than just wiping out water-borne diseases in the population concerned. Thus the M'Bal-mayo (Cameroon) water supply system gave rise to—or, at least, made possible—a new timber industry (a saw-mill and a plywood factory were installed) and of poultry farming. However, the general trend has been to cut down relatively on this type of project, in spite of the fact that the schemes, particularly those involving supply networks, are bound to be a success socially speaking. The more water is supplied to the population, the more water the population will consume. The upkeep and running of these projects always involves the authorities (or the governments which subsidize them) in enormous financial outlay and it is never easy to find properly qualified maintenance staff. In the social sector as a whole, the EDF must try to balance two, often contradictory, demands: it must meet the enormous needs and it must do so without forcing the governments concerned to cover excessive—and recurrent—expenses. The overall situation, as described above, is the result of a case-by-case assessment of these two demands, in the light of the governments' own priorities, rather than of a deliberate desire to concentrate on such-and-such a category of aid.



Nomadic herdsman and cattle at an EDF pumping station at Bulele (Somalia)

Water policy

It is increasingly clear that the recipient country must specify its fundamental options as to the utilization of its water resources. It is of no great importance in the end if a highly individualized sectoral policy or a broader programme is adopted. What is important is that an overall strategy for coping with minimal needs be defined and put into practice, so that the projects are properly coordinated.

If there is no general plan based on detailed, stage-by-stage studies, any investment may upset the equilibrium of the country's hydraulic infrastructure. There may be disproportionate development of town rather than village supplies or of village supplies in some areas rather than in others. Supply systems may be of poor technical design, the equipment (pumps) may not suit the overall village network, and so on.

However, a clear-cut water development policy in the country concerned will mean that the volume and rate of investments can be defined and effective and profitable strategies be worked out to boost sales and ensure financial balance (expenditure, operating costs and income) of existing and future equipment and installations.

Town planning policy

Growing demand for water in the towns means that more and more funds have to be devoted to urban water supplies. But the supply systems themselves may well constitute an additional attraction for potential immigrants. Higher rates of urban development will mean that more money will have to go

Guidelines for the 4th EDF

Before describing the hydraulic projects in the 4th EDF indicative programmes it will help if we list a number of principles, based on past experience, so as to reveal the main guidelines for the design of future projects.

on town supplies, to the detriment of rural supplies and so on—a vicious circle. When financial resources are being shared between town and village supplies, this should be borne in mind—as should a reasonable rate of urban development, defined in the light of the conditions in each country.

Choice of site (in rural areas)

Full utilization of a well may be held back by the existence of a stream or traditional well nearby. Villagers care more about nearness than quality of supply; pollution is still of little concern to them in most places. Wells may also be poorly used because output is low, perhaps due to bad siting. This means that the site of each well should be decided in consideration of the villagers' habits as well as the hydrogeological composition of the ground. Habit and custom are of prime importance. The new well must be as near the village as possible and no further away than the existing source of water supply. It must not be sunk, for example, in sacred ground or near graves. Unfavourable geological conditions will sometimes mean that all these demands cannot be met and the hydrogeological features of the ground will have to be thoroughly investigated before a site is fixed on.

Choice of pumping system (in rural areas)

The system adopted must comply with many, often contradictory, conditions. It must be cheap, durable and easy to maintain and use. It must not affect the quality of the water and should not waste it. But do wells need to have pumps fitted? Water is, after all, often collected in buckets when the

pumps break down (there are no guarantees as to quality in this case) and pumps are expensive to install and maintain.

Any answer to the problem is necessarily political. It is largely determined, in any given country, by the stage of development and standard of living of the population and, most important, by political targets and options. Theoretically, water can be drawn by hand from any well up to 50 m deep—or even more—but a pump is fundamental to any basic scheme to provide unpolluted drinking water.

Education in public health

The force of tradition means that villagers are likely to look upon any new, modern well as just like any other source of water, similar to streams and traditional wells. Consequently, investments in village water supplies can only be an economic proposition if the local people have been made aware of the importance of clean water. Well-sinking programmes must, therefore be combined with public health training schemes.

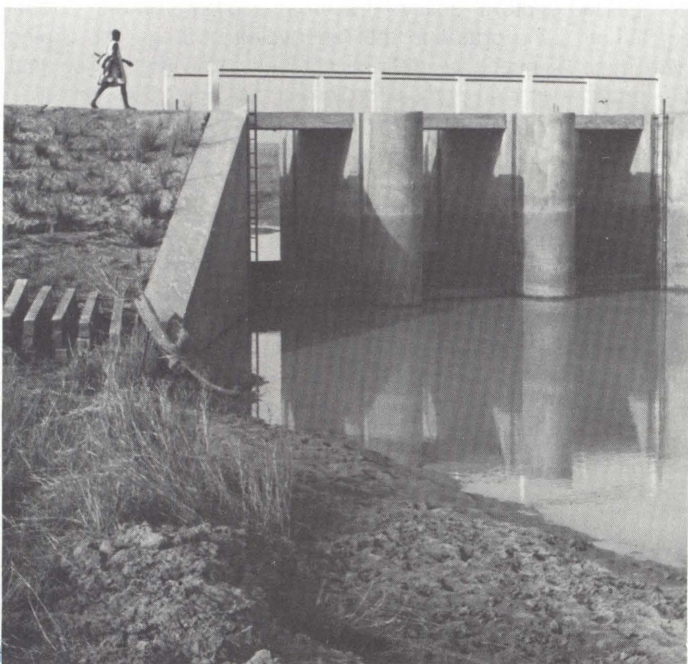
Management and maintenance

This is probably the most important point, or at least the one posing the most difficult problems in developing countries. It is an extremely difficult job to ensure the smooth running and proper maintenance of investments and many projects have given disappointing results for lack of upkeep. Ensuring that everything has been done to enable the system to function unaided for a normal period is one of the main aims of project assessment. This involves good project design (simple and cheap operation and maintenance), institutional characteristics (efficient organization and clear apportioning of responsibility), the method of financing the service provided (tariffs and/or grants actually received), the availability of material means (transport, tools, fuel, spare parts, etc.) and the training of staff at all levels (technical, management and so on).

Special attention must be paid to staff training—either before or during the investment period—and to the problems of pricing. Prices must at least guarantee viability of the system or, if they do not, it must be subsidized, since public services of this sort do not necessarily need to balance their books. However, prices structures must be such as to enable even the poorest sections of the population to obtain water. Any sliding scale can be used—e.g. unit prices which increase with consumption or a duty based on the rateable value of the housing. It is assumed that charges will be based on quantities consumed and that there is no question of adopting the British flat-rate system.

The percentage of EDF aid to hydraulic projects should go up in the future and the beneficiary countries, who have every interest in ensuring that the investments are as fruitful as possible, might usefully consider these and a good many other points.

The total 279 million EUA (see Table IV) covering all hydraulic projects in all the indicative programmes currently agreed with the ACP countries signatory to the Lomé Convention represents 14.5% of commitments under the 4th EDF, as opposed to 13.1% under the first three EDFs.



Mopti (Mali): the flooding of the rice fields is controlled by a system of coffer dams

EDF WATER PROJECTS IN FIGURES

Table I

Commitments for water-development projects in EDFs 1, 2 and 3

(1 EUA=US \$ 1.117)

(million EUA)

Sector	Period	1st EDF (1961-65)	2nd EDF (1966-70)	3rd EDF (1971-75)	Total (1961-75)
	Rural water supplies		26.2	14.3	9.6
Urban supply networks		14.2	24.6	39.2	78.0
Drainage		8.9	2.9	4.6(1)	16.4
Water-engineering for agriculture		30.2	33.0	45.8	109.0
Miscellaneous (2)		5.3	24.2	—	29.5
Total (All water-engineering projects)		84.8	99.0	99.2	283.0

(1) Drainage and miscellaneous.

(2) General hydraulics and hydroelectrics, excluding power stations etc.

Table III

Rural water supply schemes EDFs 1, 2 and 3

Country	Water points
Benin	438
Cameroon	16
Central African Empire	1 146
Chad	680
Ivory Coast	718
Madagascar	140
Mali	26
Mauritania	70
Niger	1 391
Senegal	400
Somalia	70
Togo	262
Upper Volta	150
Sub-total 13 associated countries	5 507
Algeria	3
Total	5 510

Table II

EDFs 1, 2 and 3: Percentage of total commitments devoted to water-engineering projects

Sector	Region		
	Sahel	Other	All
Rural water supplies	5.1%	1.0%	2.3%
Urban water networks	6.4%	2.3%	3.6%
Drainage	0.5%	0.9%	0.8%
Water-engineering for agriculture	5.8%	4.7%	5.0%
Miscellaneous	0.5%	1.7%	1.4%
Sub-total water-engineering projects	18.3%	10.6%	13.1%
Other projects	81.7%	89.4%	86.9%
Total (All projects)	100.0%	100.0%	100.0%

Table IV

Water-engineering projects as a percentage of total indicative programmes

(Provisional estimates)

Sector	million EUA	Per-centage
Rural water supplies	38.0	2.0%
Urban supply networks	43.5	2.3%
Drainage	16.8	0.9%
Water-engineering for agriculture	120.5	6.3%
Miscellaneous	60.1	3.1%
Sub-total water-engineering projects	278.9	14.5%
Other projects	1 639.8	85.5%
Total indicative programmes	1 917.8(*)	100.0%

(*) For 42 ACP countries only - Situation at end 1976.

Examples of EDF projects

MALI

Rice-growing

The Mali government launched the "Operation Rice" organizations—independent, official bodies in charge of developing rice-growing—in 1969. This was a bold scheme, geared to meeting the growing home demand for food products, and was based on the country's vast ecological and human resources. The decision came after various improvements to the rice trade, involving better growing techniques. Rice is one of Mali's traditional crops and the various schemes completed since the '60s have made it possible to study and perfect a whole range of modern techniques—controlled flooding (partial water control) and irrigation (total control) wherever possible and rainy-season and valley-floor growing in the south. The EEC contributed to rice-growing by providing grants for six successive projects between 1960 and 1974 for a total 22 million EUA plus. The schemes covered are: three rice-growing schemes in Mopti in 1960, Office du Niger in 1963, water-engineering improvements for agriculture in Farako and Diaro in 1968, experimental rainy-season rice-growing in Sikasso in 1971, water-engineering improvements for agriculture in Ségou ("Operation Rice") in 1977, rainy-season rice-growing in Sikasso in 1974. The Ségou rice project, financed in 1972

Diaro rice paddies



EDF

for a total amount of 6 600 million Mali francs (11.68 million EUA), is by far the most important of these projects. It is aimed at improving 44 455 ha of land, based on experience with previous projects, and it is an integral part of the Farako and Diaro schemes. The EDF is also helping with a large-scale scheme started with bilateral French (FAC) aid and a similar "Operation Rice" organization, set up at Mopti on the same basis and covering 29 000 ha, has been financed by the World Bank.

The Ségou rice project primarily involved:

- carrying out new improvements or improving existing paddyfields;
- constructing buildings, sheds and offices;
- providing the equipment (vehicles and various materials) for "Operation Rice";
- purchasing collective and individual agricultural equipment and supplying fertilizer;
- providing technical assistance and extension services during the initial phase;
- running additional schemes involving such things as further improvements (20 000 ha), rural instruction, basic education and so on.

The Ségou water-engineering improvements for agriculture involve partial water-control and use a cheap and relatively unsophisticated method which is suitable both for the economy and the peasant farmers in the area. The targets for the 1972/73-1977/78 period are to extend the areas under cultivation from 30 500 ha to 44 455 ha, to push up production from 18 500 t to 90 000 t of paddy rice p.h. and to increase average yield from 1 100 to 2 600 kg per ha.

In fact, the first results, obtained during the preliminary phase (1969/70-1971/72), could not be maintained because of the severe drought in 1972 and 1973. Only 21% and 22% respectively was harvested from ground sown during these years. Better results were obtained from 1973/74 onwards and this confirmed the hopes placed in the project; further improvements were obtained in 1975/76.

In spite of the advantages already mentioned, the limitations of the partial water control technique were shown by the drought and its effects on production when the rivers only rose slightly. In cases of this kind, only total water control and mechanical pumping will enable the improved areas to be properly irrigated. This can be achieved if much greater investments are made and a much greater effort is put into teaching the farmers about the new techniques. The existence of water-engineering schemes in agriculture and the receptivity of farmers in the Ségou area contributed to the success of the project, which was financed by exceptional (extra-EDF) budgetary aid from the Community to Mali in 1974 and involved turning a paddyfield over to total water control. This was a pilot scheme and should normally enable two crops (with a yield of 3-4 t each per ha) to be grown every year and should be a testing ground for possible further extensions.

NIGER

Wells

First and foremost, the Community has provided aid where it was needed the most with water resources and water control.

Water is a crucial problem in Niger, which only has two permanent rivers, the Niger in the west and the Koumadougou in the east, in the whole of its vast territory. There is almost total drought in the area between these two rivers for eight months of the year and a major part of everyone's daily life is devoted to digging for water and transporting it.

Water supplies only barely cover minimum needs and any increase in activity or in the population demands that more water be made available.

The Niger government therefore asked the EDF to finance a study of a rational hydraulic equipment programme, based on a comprehensive survey of water needs in permanent settlements of 300 plus inhabitants—i.e. in the populous area of Niger. This involves 20% of the national territory and more than 90% of the population and covers 1 300 km from north to south and 100-200 km from east to west.

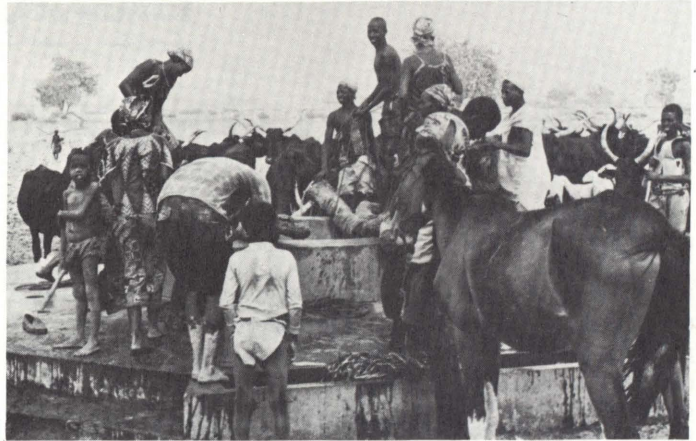
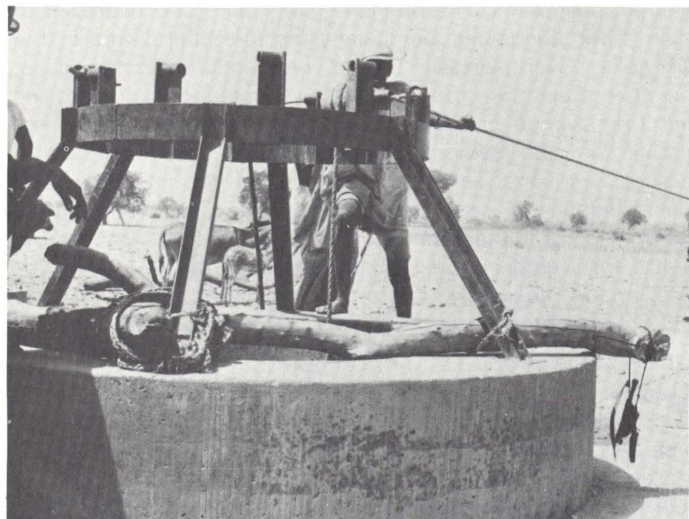
The study was completed in 1966 and enabled the government to draw up a works programme. The EDF has already financed the construction of 1 366 wells for a total 12.7 million u.a.

Decisions on well construction

May 1960	395 wells
March 1965	150 wells
December 1967	514 wells
February 1973	307 wells

The main advantages of these investments have been to:
— cut down on distances water has to be transported;

With the help of the metal frame above the well, the herdsmen can use pulleys and ropes attached to their cattle to draw water



The villagers put tree trunks above the edge of the well to protect the ropes from rubbing against the concrete

- avoid the need for night pumping;
- improve the health of the population;
- increase quantity and quality (the extra water points have enabled pasture land to be used more extensively);
- enable fuller use to be made of arable land via better population distribution.

The OFEDES (Office des Eaux du Sous-Sol — Subsurface Water Board) is an official independent body which regularly maintains the wells, and uses external aid to sink others.

Local populations take an active part in the construction of these wells, which are considered as village property and therefore maintained regularly.

EDF aid in 1973⁽¹⁾

This provided 300 wells in various rural areas in the Niamey (20), Dosso (30), Tahoua (50) and Maradi (200) departments.

Some 120 000 people are involved and the wells will also provide water for livestock (50 000 head of cattle and 100 000 sheep and goats).

The government (2) selected the villages where wells would be built in consideration of degree of water shortage, number of inhabitants, quality of supply (distance between well and village, regularity and quality of supply), importance of and outlook for agriculture and ranching and social needs (school, dispensary, market), after discussion with the villagers themselves.

Two-thirds of the villages chosen had no water points at all and the rest had only a poor supply from a traditional well.

Anticipated effects of the project

The project should satisfy normal water needs (20 litres per person per day), improve the lot of the women by reducing the distance water has to be carried, releasing more time for attending to crops and the domestic economy, settle and redistribute the populations of the larger villages, improve health via better quality water and provide enough water for stock-raising.

(1) Commitment of 1 753 million u.a.

(2) In the light of the recommendations of the general, EDF-financed study.

MADAGASCAR

Bas-Mangoky agricultural water-engineering project

There are two main reasons for improving the Mangoky delta—the regional economy and the national economy.

At regional level, the project contributes to improving a zone on the edge of the Grand Sud, one of the least developed parts of Madagascar. The natural conditions in this area are particularly unfavourable, rainfall is very low and any development will have to be partly based on projects in neighbouring regions, which might also be of interest to people in the very poor areas.

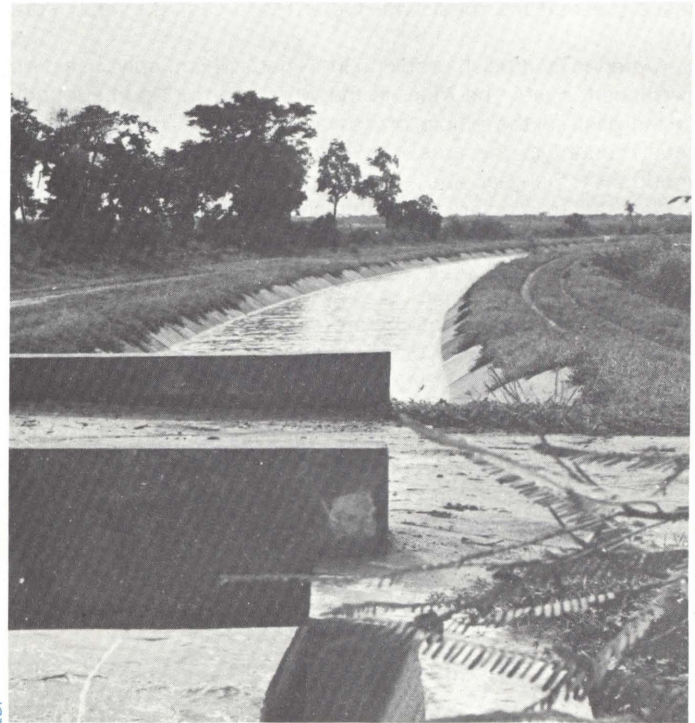
The Bas-Mangoky improvements have had an effect here—recent statistics show that about half the farmers in the improved area are local people and half from the south and south-east.

As far as the national economy is concerned, the project is in line with government attempts to boost national rice production and diversify agriculture in general. Increased production of cotton, which is ginned at Tuléar and spun and woven at Antsirabé, has enabled the country to cut down on imports of cotton yarn and fabric.

The scheme is a major undertaking. It was started in 1961 and, in 1961-1965, various improvement methods were put to the test on a full-scale pilot unit, financed with bilateral aid from France. Growing techniques, methods of exploitation and possible extension services were all tried out. Alongside this, a dossier on the development of a 10 000 ha area was presented to the EDF in 1961 and this led to financing worth FMG 1.2 million being provided in 1962. This financing enabled the basic infrastructure to be built between 1964 and 1966—water was taken directly from the Mangoky, a 20 km supply channel and a 16 km irrigation channel with a protective dyke were built and attendant works were carried out. This project included the 1000 ha pilot unit, on which testing was continued.

A second financing, of FMG 2 600 million, granted by the EEC from the 2nd EDF, enabled additional infrastructure—irrigation and drainage channels, service roads, etc—to be built. Phase II was initially intended to cover 3 700 ha, but this had to be cut down to 1 500 ha (plus the 1000 ha pilot unit), because of the serious damage to both land and constructions due to the cyclones of 1969 and 1970 and the need to devote some of phase II funds to this.

Nevertheless, a third financing of FMG 3 100 million from the EEC's 3rd EDF meant that work in progress could be completed, bringing the areas under cultivation from 2 500 to 5 500 ha. Once phase III is completed, 3 500 of the 5 500 ha will be used to grow cotton, 15 050 ha for rice and 950 ha for forage (rotation cropping). The forage will be used to fertilize



The Bas-Mangoky project

the soil or feed cattle raised by farmers near the improved land—which is in itself a contribution to the diversification of agriculture. Farmers have also started to grow cape peas on the banks of the Mangoky in the dry season.

In spite of the difficult local conditions, this project has fulfilled its main aims. The problems were partly connected with the climatic conditions, particularly the torrential nature of the Mangoky, which necessitated the construction of costly dams, etc, to protect the crops against the waters. In addition, the fact that a large part of the population working on the improved land had previously had traditional occupations (cattle-raising) meant that some time elapsed before they adapted to the techniques of cotton and rice growing. The prime aim of the Malagasy authorities was to make the Bas-Mangoky a centre for regional development near the Grand Sud, to provide inhabitants with better employment possibilities, income and standards of living. All of this has been largely achieved.

Current yields are 3.5 t of rice (from 800 ha) and 3 t of cotton-seed (from 2 000 ha), putting Bas-Mangoky high up in the world cotton league. Once the project is finished, 80 % of Bas-Mangoky—4000 ha—will be devoted to cotton. This should, at present rates, give 12 000 t p.a., thereby making a considerable contribution to re-establishing the balance of trade. □

Maritime transport: ministerial conference in Accra

At the end of February 1977 over 20 countries met in Accra for the Third Ministerial Conference of West and Central African States on Maritime Transport. Their objective was quite simple: to continue their efforts of the last two years to encourage the growth of national shipping lines in West and Central Africa and to exert some control over the actions of the foreign shipping lines which at present carry the overwhelming majority of the trade to and from the region. The importance of maritime transport to the countries involved in the conference is very considerable. The limitations of air freight and the absence of good surface connections mean that the sea routes to and from West and Central Africa carry some 80% of the region's trade. Freight charges, usually paid in foreign exchange, affect both the cost of imports and the competitiveness of exports. They therefore have a direct effect on the economies of developing countries.

The ministerial conference system

Mainly in response to the rapid increase in freight rates since the beginning of the decade, the West and Central African states decided to cooperate in the field of maritime transport, and two years ago held their first ministerial conference. The group has still not become a formal organisation with a permanent secretariat, but it does have officers and a number of committees. One of the most important of these committees is the Freight Rate Negotiating Committee which deals directly with the so-called "conference lines" (1) which operate along the coast of the region. Over 80% of the trade to and from the West and Central African ports

is carried by five of these "conference lines". The conference lines are dominated by European shipping companies, but UKWAL (the United Kingdom West Africa Line) also includes the national shipping lines of Nigeria and Ghana. Cooperation and negotiations between these conference lines and the African states has been a central issue ever since the latter decided to coordinate their national policies through annual conferences and ad hoc committees. The relationship between the two sides has not always been an easy one, and again at their third conference in Accra, the West and Central African ministers discussed relations with the companies, in particular UKWAL and IWAC (the Italian West Africa Line), with which agreement on freight rates had not been reached. The Ministerial Conference passed a resolution requesting UKWAL and IWAC "pending an appropriate agreement being reached at the next round of negotiations with the Negotiation Committee of the Ministerial Conference, and in consultation with the Division of Transport of UNCTAD, to suspend implementation of the proposed freight rate increase for UKWAL and the currency conversions". This last point refers to the decision to charge in US dollars after the recent period of fluctuations in international currency markets, a decision on which the ministers would also like to negotiate.

The threat of penalties

The resolution did not, however, stop there and the ministers proceeded to threaten penalties against the conference lines which did not cooperate over freight rates. "A penalty of not less than 50% of the FOB value of the cargo imported, should be paid by the operating ship before it is allowed to leave the ports". Such penalties would create a crisis in the relations between the Ministerial Conference and the conference

lines, but a three month delay in their application was agreed in order to allow for further talks. At the end of the Accra meeting, the outgoing chairman of the Ministerial Conference, Dr John Nkengong Monie, Minister of Transport of Cameroon, gave his personal view of the resolution on financial penalties in an interview with the "Courier": "The view of the Ministerial Conference was justified, not because we have anything against UKWAL but simply because UKWAL has shown a reluctance to negotiate, to discuss freely and come to terms with the members of our negotiating committee. Since 1975, when the Ministerial Conference started, we have been trying to arrive at some fair agreement with UKWAL but this has proved impossible. We have done so with all the other conference lines, CO-WAS, IWAC, CEWAL, MEWAC, and even the Americans, whom we haven't met, have written to us and said they totally agree with us. So we find it very difficult that UKWAL, one of our earliest partners, and one of which our two oldest African national shipping lines are members, has not been able to agree with us. We have nothing against UKWAL, all we want to do is discuss with them how best we can cooperate". Because UKWAL also contains two important African shipping lines, the Black Star Line of Ghana and the Nigerian National Shipping Line (NNSL) there is an added complication. The African states want freight rates to be kept down to help their exports and reduce import costs, but they also want their own national shipping lines to remain viable.

Dr Monie did not believe there would be a problem. "I don't think there is a conflict of interest, the question is deciding how much is fair. UKWAL has among its members some African national shipping lines; we want these national shipping lines to operate profitably.

"There are other national shipping lines which do not belong to UKWAL and we also want them to operate profitably. We are spending large sums of money to buy these ships, we are not buying them for pleasure, we want them to bring in some money. The question is

(1) The expression "conference line" applies to a group of shipping companies who work together on the same route.



Ghana's head of state General Kutu Acheampong opens the Third Ministerial Conference of West and Central African States on Maritime Transport. On his right, the outgoing chairman, Dr John Nkengong Monie, Minister of Transport of Cameroon

how much profit we allow these shipping companies to make, because obviously we are not only looking after the interests of individual shipping companies, we are also looking after the overall national interest of each state. How much can the importers and exporters pay out? We want this to be fair, we want some profit margin for the companies but this should not be so high that the ordinary exporter or importer cannot afford to pay, because you would then be robbing Peter to pay Paul", the minister said.

Encouraging national shipping lines

Apart from the immediate problems with the conference lines, the Maritime Conference in Accra also discussed longer term plans. It is generally agreed that those states which were able, should set up their own shipping lines, and those that had already done so should expand them. One major problem is finance, but Dr Monie believed this

could be found: "A lot of it will come from bilateral agreements, for instance there are many shipyards in Europe which are lying idle at the moment and there is a great deal of unemployment in these areas, so I think it is possible to interest the shipbuilding countries in financing the building of ships which would serve a double purpose, firstly by creating employment for the shipyards themselves, and secondly in the long term it will generate some finance even for the countries that are lending us this money. Finally it would permit us to buy these ships. This is the European side of it. Japan as you know is a big shipbuilding country and is prepared to grant us long term credits to finance the purchase of ships. Of course, if you ask for a personal opinion based on what we have tried in Cameroon, any country wanting to start its own shipping line should start by buying secondhand ships, operate with these for a few years, and then see how the thing is going before embarking on buying new ships because these are very costly".

Shipping schools for Accra and Abidjan

National shipping lines cannot be really national unless they are run by local personnel. Training captains and other staff for both on-shore and sea-borne duties takes both time and money, but the Maritime Conference decided a start should be made in training more personnel and that the effort should be regional rather than national although national schemes were not excluded. The ministers will seek outside finance for the training schemes in Abidjan and Accra, and both individual EEC countries and the EEC as a whole were mentioned as possible sources.

Future role of the conference lines

An expansion of national shipping lines in West and Central Africa could automatically have repercussions for the existing conference lines which are dominated by European companies. But Dr Monie did not think the effect would be serious: "I don't think the new fleets are going to supplant them, indeed it isn't the aim of the new fleets to do so. We have been trying to form part of the conferences, but they are a little reluctant, understandably reluctant, because if they were carrying 100%, then with the creation of new fleets they carry perhaps 80% or 90%, so they are losing money. I can understand their reluctance, but I think it's a very shortsighted view. In the long term I think the best thing to do is to join hands and work together. This has been going on between Nigeria and the United Kingdom, and Ghana and the United Kingdom, and I think it works successfully. We cannot create our own fleets overnight to supplant the conference lines, we've got to work with them".

40/40/20

The long term objective of the West and Central African states is to reach the 40/40/20 ratio suggested in the Code of Conduct drawn up by the United Nations. This document, which covers the whole range of maritime transport, will only come into effect if 24 members of the United Nations accounting for 25% of the world's trade ratify it. The Ministerial Conference in Accra passed a res-

olution urging the African states to ratify because of the importance of the Code of Conduct for developing countries. The 40/40/20 scheme aims at sharing the maritime trade between any two countries on a more equitable basis. The objective is that 40% of the trade should be carried by one partner and 40% by the other, the remaining 20% being left for third parties. This cannot be achieved until there has been a considerable expansion in merchant fleets in developing countries. The United Nations estimates that although 60% of the world cargo transported by sea is loaded in developing countries, their share of the world tonnage is only 8%. Dr Monie does not think that the 40% target for the developing countries would threaten the existing carriers, at least in the short term.

"I keep telling our European friends that they should not be too worried, it will take quite some time before we can develop fleets which could carry 40% of what they are carrying now but that will not be tomorrow, not next year. Take the case of Cameroon, which obviously is the case I know best. We have a company which is one year old, with two ships, fully owned, and two on charter, that makes a total of four, and all they have been carrying so far is 10-15% of our share. The rest of it is carried by the traditional shipping companies which have been coming to Cameroon for some time".

Future of the Ministerial Conference

Before leaving Accra the transport ministers did agree to meet again next February in Dakar for a fourth Ministerial Conference. But for the moment there will be no permanent organisation set up to supervise maritime transport in the region.

"We are two years old now, and by the time we meet in Dakar next February we shall be three years old. I think the experience gathered over these three years should help us eventually to decide what permanent structure the Conference should take. Up till now I think we have operated satisfactorily. In my personal opinion, and I think it is shared by many other ministers, there is no need to rush into setting up an elaborate secretariat when we do not yet know all the problems involved. Two to three years' experience as we are now, will at



Tema dockyard (Ghana)

least give us an idea of the type of problems we shall be dealing with, and then if we create a permanent secretariat we will know what functions we want it to carry out", Dr Monie said.

An important stage in the regional cooperation on maritime transport was the adoption of the so-called "Abidjan Charter". "I think the important thing is that it insists that all the member states of the region pool their resources in maritime transport, whether for freight control, the operation of national shipping lines, the management of our ports or the association of shippers' councils. We want to be able to work a little closer, because we realise this is the only way in which we can make an impact, and an appreciable impact, on our partners", the minister added.

Concern for land-locked states

The last of twelve resolutions presented to the Ministerial Conference considered the difficult position of land-locked states whose trade has to pass through other countries before it can be shipped by sea. The ministers undertook to improve these coastal links although the exact way this might be done was not spelt out. The Ministerial Conference covers all the maritime states from Mauritania to Angola, but also includes the

land-locked states from the Central African Empire to Mali who also depend on the coastal trade. The ministers are very keen that the whole region would be considered as one, especially when dealing with the conference lines. At present some of the conference lines regard the area as two ranges, but Dr Monie believes this creates inconsistencies.

"For example, the Far East Conference is one of those which treats the West and Central African coast as forming two ranges. The Zaïre national shipping line is trying to get into the Far East Conference, but what they are saying is that Zaïre can only operate from Angola to Nigeria, leaving out the Nigeria-Senegal range, and we feel this is not satisfactory. It should be possible for Zaïre to go along the whole coast right up to Mauritania. So we insist they should regard the whole coast as one range rather than two".

With the Ministerial Conference meeting annually and covering a wide range of issues involved in the maritime trade along the coast through a number of committees, the region is in a strong position when arguing for recognition as one range. On the wider level the Maritime Conference is proving a flexible and useful experiment in regional cooperation. □

I.J.P.

CAMEROON

The Bamenda-Bafoussam highway

The EDF recently made another contribution to consolidating the physical unity of French-speaking and English-speaking Cameroon by covering three-quarters of the cost of developing and surfacing the Bamenda-Bafoussam highway, which replaces the old dirt road in the west of the country. The new road

links the whole of the north of old English-speaking West Cameroon—particularly the coffee-growing area around Bamenda—to Bamiléké-Bafoussam, the country's main administrative centre, which houses the headquarters of the Arabica coffee cooperatives.

The EDF aid was in the form of a

grant of CFAF 3 370 million, covering 72% of the total estimated costs of 4 700 million, and the remainder, primarily works supervision, came from Cameroon itself. The 2nd EDF already provided a grant in 1965, to build a 137 km railway between the town of Kumba and the port of Douala, thereby joining two areas that had never been linked before. At the recent Bamenda-Bafoussam inauguration ceremony attended by Mr Berens, head of the roads department in the EEC Commission's development directorate, and Mr Lesina, EEC delegate to Yaoundé, President Ahidjo thanked the EDF for its decisive contribution to Cameroon's development efforts and went on to highlight the importance of the new highway both nationally and internationally in the following terms.

"The road which we are inaugurating today is one of the fruits of the building of our nation and a work of both national and international importance. It is important to us, since, as you are aware, reunification in 1961 had already led to the government concentrating on linking the old federal states by building roads from east to west to ensure that there would always be contact and trade between our various populations. The Douala-Tiko road was the forerunner of this fundamental policy now consolidated by the new Bamenda-Bafoussam link—which we shall be continuing under the IVth Plan with the Wum-Mamfé-Bamenda roads.

The Bamenda-Bafoussam road is a natural extension of the Fouban-Bafoussam road. It links up the agricultural and pasture land in the west and north-west and opens up the province once and for all by linking it to the corridor of development brought into being by the Douala-Bafoussam highway. And now this is completed, the new highway is also of international importance, since, it and the Tibati-Maideguri section are parts of the Lagos-Mombasa trans-African highway of which Cameroon has now completed more than half of its section.

Building the road was not easy. The land was particularly uneven and there were problems even the best of studies could not have been expected to bring to light. The group of firms which did the work, however, did its utmost to



Construction of the Bafoussam-Bamenda road: building up a difficult section of the highway at the 35 kilometre point

EDF

overcome the problems. The government was especially concerned about one aspect and that was drainage. I know this has already involved asphalt and masonry over some 20 km of road and I am sure this work will go on being carried out wherever it is necessary once today's ceremony is over.

Let me take this opportunity of extending my sincerest thanks to the EDF, which has always been so understanding

of Cameroon's development problems and which has provided three-quarters of the financing for this project. The State of Cameroon itself is financing the other CFAF 1 300 million—25% of the total CFAF 4 700 million.

I should also like to heartily congratulate all those who have been so tireless in getting this enormous undertaking completed, all the managers and workers from both public bodies and private

firms. We cannot overemphasize the importance of the road infrastructure in the consolidation of the country's economy and in the edification of national unity. People must meet and mix if they are to understand each other and intimately share the same goals in the unity of the same national destiny. This highway is, then, a catalyst of the development of the nation and of the development of national unity." □

CENTRAL AFRICAN EMPIRE

Extensions to the Bangui water supplies

The population of Bangui is on the increase and the Central African Empire has asked the EEC Commission to help cope with water shortages in the suburbs and improve standards of hygiene by repairing, improving and extending the city's drinking water supply.

Investments cover:

- improving the existing installations to channel water directly from the Oubangui river;
- repairing existing water treatment facilities;
- altering the building where the water is treated;
- extending water treatment plants, with particular emphasis on building one of 600 m³/h., bringing capacity up to 1500 m³ per hour;
- building a 2000 m³ half-sunk reservoir;
- supplying and laying some 70 km of 60 mm/600 mm diameter pipes;
- supplying and installing public fountains.

International calls to tender were closed in April 1974 and the work, divided into four lots, began on 12 November 1974.

Lot 1 was an emergency series of improvement works to ensure continuity of drinking-water production during execution of the scheme.

Lot 2 was the extension of the water treatment plants.

The population took a great interest in work on laying pipes in the suburbs and frequently expressed satisfaction once the public fountains were turned on. These fountains were the most "social" aspect of the whole drinking-water supply project, since people living near one can now come and collect their water free of charge. Standards of hygiene have risen considerably, since this large section of the population used to get its supplies from the nearest stream or from wells tapping very polluted phreatic water.

Lots 3 and 4 involved laying asbestos-cement and PVC pipes, plus various additional facilities, drains, valves, fire hydrants, public fountains, etc.

The civil engineering works were entrusted to local firms and European firms were awarded the network equipment supply contract.

Work was carried out in good time and the firms collaborated so that Bangui had practically no water cuts during the whole period.

Work is almost complete and the network now supplies 60-80% more water, a really considerable increase.

This ever-increasing production, combined with the opening of a new water treatment plant, involves the water administration in enormous problems of adaptation and the government has just set up a National Water Board and asked the EDF for a CFAF 600 million grant to cover:

- National Water Board staff training;
- technical assistance to ensure that the Board's technical and administrative services function properly during the period when Central African managers are following training courses in Europe and Africa;
- new pipes to replace the old ones which require far too frequent repair;
- network extensions to areas not included in the current project;
- the supplies of pipes etc. which the Board needs to bring in vital income to cover its considerable outlay (paying for electricity, chemicals, etc.).

These investments could not be covered by the present project, since the economic upheavals of October 1973 considerably pushed up the estimated total cost. □

D. POULAIN (*)

(*) EDF Technical Adviser to the National Water Board.

The 2nd World Black and African Arts Festival

**Black and African peoples
reassert their cultural identity**



Guinea-Conakry
Music with a world-wide reputation



Somalia's delegation captures the spirit of the festivities

Lagos, capital of Nigeria, in size and political and economic importance Africa's greatest metropolis, was a carnival city from 15 January to 12 February 1977 when it hosted Festac, the 2nd World Black and African Festival of Art and Culture. Weeks before Festac 77 opened, Lagos and other towns, like Kaduna, were bedecked in black and gold, the festival colours. Black stands for black people the world over and gold stands for the wealth of their culture and the culture of Africa's Arab peoples, who were also represented at the festival. The Festac emblem—a reproduction of the royal ivory of Benin, the ceremonial breastplate of 16th century monarchs (see "Courier" No. 41)—was everywhere. The original is in London's British Museum, which refused to return this most beautiful work

of African art to Nigeria on the occasion of the festival.

It was in this carnival atmosphere and in torrid heat, the dream of people from colder, winter-bound continents, that the festival opened at the National Stadium on 15 January with an impressive march-past of performers young and old, of writers, poets and dancers from 46 black countries and communities around the world. Other representatives arrived at regular intervals throughout the festival, bringing the final total up to 60 countries.

Lt. General Olusegun Obasanjo, Nigeria's head of state, described the spirit and aims of Festac in his inaugural speech. He said that black people were now trying to bring the authentic African cultural heritage back to light and restore their past so long held in contempt.

The black peoples themselves will now carry out the research, construct the analysis and make the interpretations that others have long taken as their prerogative, he asserted (see page 101).

THE THREE MAIN ACTIVITIES OF THE FESTIVAL

The many events were in three main categories—displays, dancing and literature, and discussion.

Displays. Most of the countries and communities at Festac had entrance-free stands, mainly in Tafawa Balewa



Sound and movement from Niger

Square. These were enormously successful. This was the first exhibition of important works of black and African art available to the public. The beautiful pieces were proof of the extraordinary wealth of black and African art in the world. Displays by Somalia, the Sudan, Algeria, Egypt, Australia and Zaire were some of the most attractive and the "European zone" contribution, called *European African Art - encounter and influence*, presented by Martine Aublet, Jean-Louis Podrat and Jean Laud, was a striking demonstration of Africa's contribution to Western art. Gone is the time when Pablo Picasso could say he had never heard of negro art (although he did go back on it afterwards).

But Ethiopia's exhibition was the most impressive. The beauty and purity of the pieces on display provoked both the

curiosity and admiration of all the visitors. And Ethiopia's performers won thunderous applause at the opening procession.

Brazil's stand was also much appreciated—Mr Fontanelle's *Impact of African culture on Brazil* was housed in a large pavilion away from Tafawa Balewa Square. Brazil did not send a vast delegation to Lagos, in spite of the fact that its black population is, at upwards of 50 million (total population is 110 million), the largest in North and South America. But its exhibition and other displays showed the considerable weight of African culture in society and culture in Brazil today and the country is the best example of cultural ambivalence we have.

Dance and literature. Dance music is of enormous importance in the social,

and even intellectual, life of black people in Africa and the world over. Dance is, along with certain of the plastic arts, like sculpture, the African peoples' prime means of expressing ideas, attitudes and emotions and most events—presented by 15 000 artistes of the 30 000 who came to Lagos—involved dancing. It is impossible to describe such an abundance of musical wealth, although we should perhaps mention some of the countries whose high-quality performances made a particular impression—Egypt, Algeria, Brazil, Nigeria, Guinea-Conakry, Senegal, Zaire, Tanzania, Sierra Leone, Kenya, Swaziland, Angola, Somalia, the Sudan, the US and, above all, Ethiopia. And, of course, some of the greatest names of black music were in the delegations of their various countries.



Songs and dances from Ethiopia

Black literature also made its presence felt. It, too, was highly varied. There were essays, philosophical writings, novels, poetry and drama. The cinema was also very much in evidence. The large number of literary and cinematographic works shows how important both these art forms will now become as a means of representing the past, present and future of black and African peoples. We shall not attempt a rigorous criticism of these works, but it is clear that there are two main categories of writing and film—committed and uncommitted.

Broadly speaking, the committed works come from English-speaking countries (except Guinea). Writing and music from these countries criticize the colonial period, censure abuse by the new powers and celebrate the return to

freedom. This appears primarily in works performed by Nigeria's Langbodo theatre group, in the songs of Guyana's Malcolm Corrica, Kenya (Mau-Mau), Tanzania, Cuba and the US, etc.

Uncommitted works tend to come from Africa itself. They attempt to describe certain neutral aspects of society or, if there are any political overtones, to oppose any social or economic beliefs that are not in line with those in the society being described.

Colloquium. The displays, the music and the literature were of great importance at Festac. But the key to the whole thing was perhaps the discussion between a large number of intellectuals, thinkers and philosophers from the black and African world. The debate bore on black civilization, on the future of the

black and African world and on such things as the mass media and education.

Festac and intellectual and political freedom

The crucial question, one which is posed particularly acutely in Africa today and, to a lesser extent, to some other black peoples, was raised on 19 January and concerned intellectual and political freedom. During his speech at the 19 January session, Professor Ofusu Appiah (from Ghana), director of the forthcoming Encyclopaedia Africana, dealt with the construction of an intellectual community in Africa. He first asked whether the human spirit in Africa had been freed from fear and servitude and was ready to build a viable intellectual community on that continent. For, he said, "how sad it is to see some of Africa's best intellectuals abandoning their principles and ideals to become mere sycophants seeking freedom and fortune at any port abroad". Their reasoned criticism of social and economic problems tended to be seen as subversive, he said. Professor Appiah then went on to deplore the fact that, "in certain African countries, the study of certain subjects, like sociology, political science and psychology, is considered incompatible with the notion of public good and of no help with development." "Thought-control of this sort and rigid censorship oppress the human spirit, he concluded, adding that it was "quite ridiculous for the OAU to condemn inhuman acts perpetrated against the blacks in South Africa while remaining indifferent to intellectual oppression in certain other countries of the continent. This is holding Africa up to ridicule," Professor Appiah said, suggesting Africa "could well go on being underdeveloped if scientific thinking and the traditional heritage of intellectual freedom" were not "fully restored".

This speech was one of the high spots of the Festac 77 discussions. Festac was one of Africa's means of reconquering itself and, as such, it could not ignore the key issue of intellectual freedom—which is inseparable from black and African culture. This, as we have said, is one of the vital conditions if the black and African peoples of the world are to reassert the fullness of their cultural identity—the basis of Festac 77. □

L.P.



Festac 1977

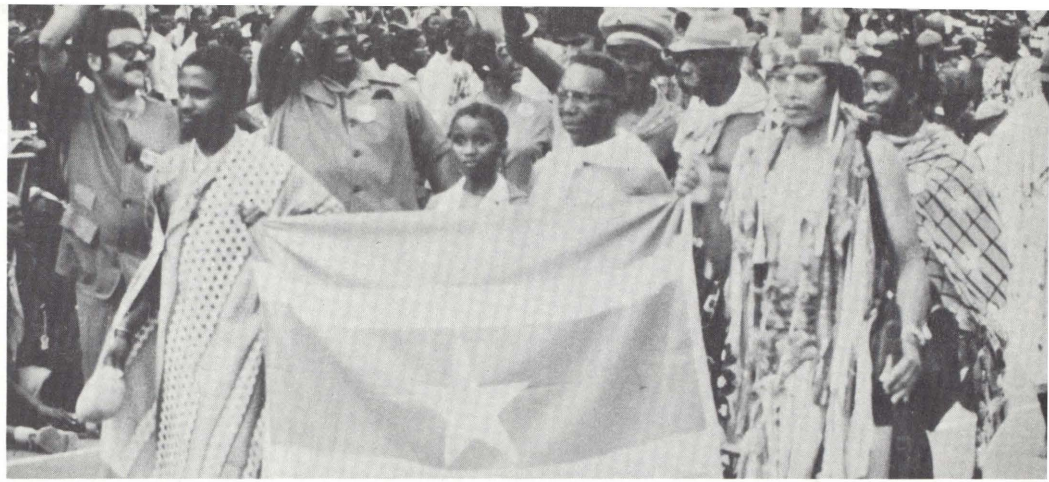
Countries which took part in the opening procession (in order of appearance)

Ethiopia; Algeria; Antigua; Benin; Brazil; Burundi; Cameroon; Canada; Central African Empire; Chad; Congo; Cuba; Egypt; Equatorial Guinea; "European Zone"; Gabon; Gambia; Ghana; Guinea; Guyana; Jamaica; Ivory Coast; Libya; Mali; Madagascar; Mauritania; Morocco; Mozambique; Niger; United Kingdom and Ireland; Senegal; Sierra Leone; Somalia; Sudan; Surinam; Swaziland; Tanzania; Togo; Trinidad and Tobago; Tunisia; Uganda; Upper Volta; USA; Zaire; Zambia; Nigeria; and the Zimbabwe, Namibia and Azania (South Africa) liberation movements. Representatives from Angola arrived in Lagos a few days later and put on an extremely moving display. On the occasion of this festival Lagos also welcomed many African heads of state — President Neto of Angola, President Mobutu of Zaire, General Eyadema of Togo, and General Acheampong of Ghana, while President Ahidjo of Cameroon attended the grand durbar in Kaduna, etc.



(l. to r.) — Nigeria: a rich and powerful culture; the USA; Mali; Algeria; Senegal in the front line of a changing culture; woman from Sierra Leone





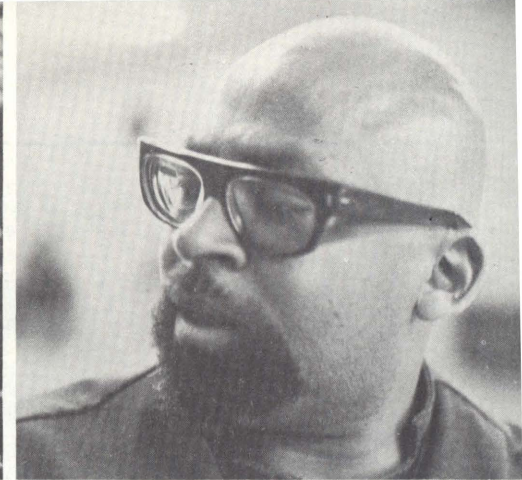
Photos Gerd Meuter



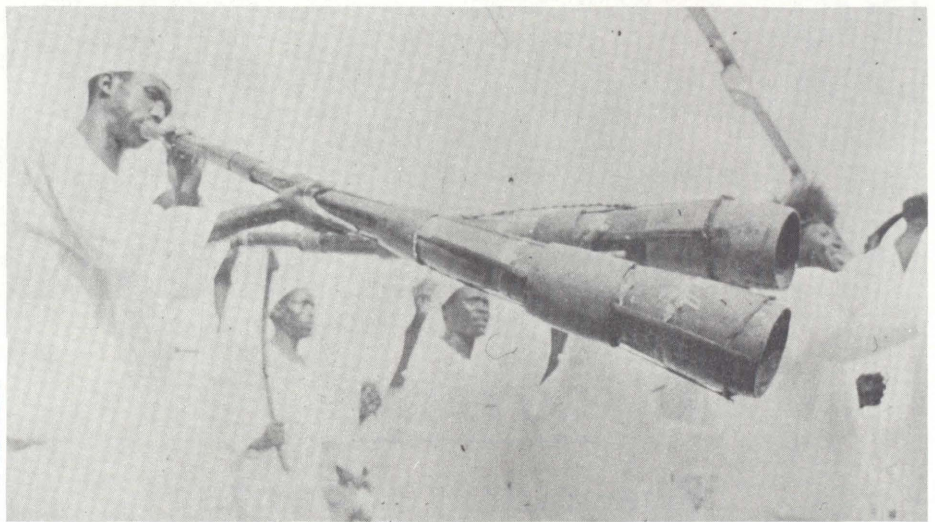
(From left to right) Abéti, a singing star from Zaire; Surinam's troupe proved a great success; Britain's standard bearers; Dr Maula Ron Karenga, who led the US delegation; singing group from Liberia; Libya; Miriam Makeba (Azania-South Africa); Ethiopia's famous trumpeters; a young singer from Ghana capturing the hearts of the crowd; Swaziland; Congo



Photo Chantal Kimmaer



Photos Gerd Meuer



Some of the big names of black music at Lagos

Miriam Makeba (Anzania-South Africa); Manu Dibango (Cameroun); Francis Bebey (Cameroun); Stevie Wonder (USA); Randy Weston (USA); Francisco Slinger — The Mighty Sparrow (Trinidad and Tobago); Bem-baya Jazz (Guinea Conakry); Malcolm Corrica — Mighty Canary (Guyana); Calvin Whyte — Invaders Steel Band (Guyana); Oscar Peterson (Canada); Osibisa (London); Franco, Rochereau and Abeti (Zaire); Kenya National Theatre Troup — a great success with "The Trial of Dedan Kimathi", the story of a Mau-Mau independence fighter, and "Big trial in the City", about land speculation in Nairobi.

Some of the big names who were unable to be there

Bob Marley and Jimmy Cliff (Jamaica); Fela Ransome Kuti (Nigeria). Ransome Kuti's absence was keenly felt and very much regretted, particularly since this is an artist whose fame has spread well beyond Nigeria itself.

Photos Gerd Meuer





Guyana at Festac 77

GUYANA

“The cultural contact is essential”

Shirley Field-Ridley

One week into Festac 77, Shirley Field-Ridley, Guyanese Minister of Information and Culture, told the “Courier” what she felt was the most important aspect of the whirl of activities in Lagos—what culture and information mean for the liberation and construction of a nation.

► *Minister, what are your first impressions of Festac 77?*

— A lot of work has gone into preparing for this festival. I have been a vice-president of the International Festival Committee since 1972, representing the Caribbean zone, so perhaps I am well placed to appreciate just how much work has been required. A festival as huge as this inevitably involves problems of organisation, but I think when one takes into account the scope of Festac—55 nations were represented on the opening day—then the Ni-

gerians must be congratulated on the work they have done to get things running as smoothly as they are doing.

► *Festac has brought together black art and culture from around the world. How do you think the momentum of this movement can be maintained in the future, when the festival is over?*

— There was a big gap between the first festival and this one, and looking at the scale of this I am not really sure which country would be able to hold the next one on the same scale. Ethiopia has been chosen as the host to the next festival. Whenever it takes place, I think it is very important that this meeting be encouraged. For us in the Caribbean, I think it is essential to be able to maintain the contacts we have made. We are part of the developing world, and we in Guyana have been very conscious of the ties that

link all the developing countries. Many of them are African; and Africa is one of the roots of Guyana. We have had links on the political level, which are continuing; we have tried to establish economic contacts, but those are difficult; then the cultural contact is, to my mind, essential. It is a meeting of people that helps you to understand the concepts behind your development, indeed behind yourself. It gives an understanding of who you are, of who the African people are and who we Guyanese are and what is our relationship.

I don't know if there can be another massive festival like this one. If another country can manage it, they will certainly have Guyana's full support. If it can't be done, we must find another way. Perhaps there could be festivals of music or drama, for instance, that would keep bringing together all black and African peoples. If we can't do it all at once then let's do it in bits, but let's keep the dialogue going.

► *So you feel there will not be another festival on the scale of Festac 77?*

— I don't know. This one must have cost a great deal and I don't think many countries are going to be able to make that kind of investment.



Malcolm Corrica, parliamentarian, author and composer, stirred the National Theatre audience with his songs for cultural freedom

What real liberation is about

► *As far as politics are concerned, has this festival helped make black people more conscious of their own liberty and liberation?*

— Oh yes, that was bound to happen. The colloquium has been going great guns. To me, it's the centre of activity because that is where we are discussing what it is to be African—what is African education and African culture. As I expected, there have been very fierce debates, even in the planning of this festival. Some countries had very different ideas from others: for instance, what is liberation? It is not enough just to throw off the imperialist's yoke and feel you are liberated. You have got to get him out of yourself, because one of the worst things about colonialism is not the overt control, but the control of ideas. Our whole image of ourselves is shaped and we lose our self-confidence. After a time, people believe the sort of propaganda that tells them something is wrong with their culture. That, to my mind, is what real liberation is about. And that debate is still going on. The whole concept of what it is to be black is being argued out.

► *What has been said in the colloquium?*

— Papers have been discussed on subjects such as the role of the mass media in the culture of a nation, on the concept of negritude and how it applies—here Senegal has one position, Guinea another, and although that has not been resolved, what is important is that dialogue is taking place.



Shirley Field-Ridley

Information and culture in Guyana

► *Turning to your own country, what sort of organisation of culture and information is there in Guyana?*

— Culture and information are combined in one ministry, which we find useful because they are closely related. We regard the whole information network as one of the resources of the country, to be used in the interests of development. We use the network to help in the education process. We have only been independent since 1966 and we have to change values and concepts, for adults as well as for children. As well as the formal schooling system, the public instruments of education and information, newspapers and radio, are being adapted to meet our needs.

Of course, there are problems. We still depend on international news agencies which slant news in the way they want it to be seen; we use Reuters, UPI, AP, Tass, and sometimes we have to rewrite their stories in the light of our understanding of what is happening. For example, we get stories that describe freedom fighters as reb-



Above, the "Invaders". Below, the youngest member of the Guyanese delegation, Colin Whyte (aged 10), is introduced to Nigeria's Attorney-General, Mr Alexander. With them, from left to right: Malcolm Corrica, Hamilton Green and Rudy Bishop, band managers

els, and that doesn't help the education of our people.

Alongside information there is cultural development. Like most colonies, Guyana had two levels of culture: the level of the master race—that is how they projected themselves—and the level of the people, the masses, who owe their ancestry to African, Indian and Amerindian origins. They have cultural values, concepts, relationships and means of expression of their own, and these tended to be considered not respectable. If you believed in the native culture you were nobody. You had to put on your collar and tie and attend the proper functions. We have been trying to give people confidence in their own values, beliefs and means of expression.

We recognise that the European input is not something that can be erased. Some of it is part of us now. But let us get it in the right perspective, so that it does not dominate other cultures.

► *What are the main obstacles to getting this across?*

— Money and people! Like all developing countries, especially black countries, we work with foreign technology; that hardware from the developed countries comes together with software, so the propaganda still comes through. Our journalists and radio technicians, who have been trained overseas, still have a lot of trouble in getting away from the old concept of "published and be damned" and seeing the media as an instrument of develop-



ment. We don't have enough people, first of all, and we don't have enough who are oriented to seeing themselves as tall and strong.

The other problem is that although we are a small nation, covering only 83 000 square miles, communication is difficult because of the isolation of some of our communities from Georgetown, the capital. We can't be proud of ourselves, we can't be Guyanese, if Georgetown is still regarded as

the only important place, as in colonial times. But it requires money to keep contact with all these groups, to keep education going and make sure the cultures are integrated, and we are a poor country. We depend on sugar and bauxite and we have problems with the weather and the world markets. But we believe in self-reliance, and we keep trying. □

Interview by L.P.

“We are attempting to recapture the origins and authenticity of the African heritage”

Lt. Gen. Olusegun Obasanjo



President Neto of Angola is welcomed by General Obasanjo. Numerous heads of state attended the festival, as did Andrew Young, the new US ambassador to the UN

In his inaugural speech at the Lagos festival, Lieutenant-General Olusegun Obasanjo, Head of the Federal Military Government of Nigeria, described the spirit and aims of the Second World Black and African Festival of Arts and Culture. He said that the revival of original black culture in the world today was a form of “diaspora”, in opposition to the movement which had taken black people away from Africa. Black and African people, he said, were attempting to recapture the authenticity of their culture and restore a past that had long been held in contempt. He stressed that, for years, Black and African peoples had been “reduced to inert, if not inanimate, objects of Western speculation”. The journey towards political awakening began with a cultural restoration, said President Obasanjo

and the black peoples themselves would now reassert their place in the world, a place that “for a long time... was mapped, analysed and interpreted by others”.

Art, freedom of thought and action, the future

The future should bring “complete freedom of thought and action” Lt. General Obasanjo said:

“To succeed we must restore the link between culture, creativity and mastery of modern technology and industrialism. The timelessness of our art forms has made this great continent the point of reference for defining both ancient and modern art. The terra cotta head of Ife

challenges the claim of Greco-Latin pre-eminence. The creativity of Dogon and Bambara pre-dates the originality of modernists from Gauguin to Picasso and Moore. The power of African creativity is often described as past, ancient and only of archeological interest, as if a people could ever lose that universal inner motivation wherein creativity emanates. The Benin art that so engages the interests of art connoisseurs still remains a living force and continues to enrich the artistic heritage of not only this nation but for all lovers of African art. Much of this creative power and genius will be apparent here in Lagos during the next four weeks.

“It has now been established that man started his journey from our great continent. It has also been accepted that the earliest tools, which were the beginning of modern technology, were fashioned here. The pyramids of Egypt, the ruins of Zimbabwe, the subtle and complex designs of African traditional architecture, and the achievements and scholarship of the University of Timbuktu all attest to the fact that there is a rich and distinguished past for which all African peoples can proudly claim world distinction. Human civilisation was a corporate experience of the human race and our contribution has not been inconsiderable.

“This great continent had great civilisations before and after the awakening of the northern hemisphere... What is of paramount importance is to recognise and give modern technology, which is the base of Western dominance, its due place. Modern technology is indispensable to our march forward but acquisition of technological superiority does not mean a break with the past... Technology has to fit into our culture and our conception of the world and not vice-versa. The answer lies in our mental emancipation, a break with the idea that technology which is currently a Western preserve, means emasculating our culture and identifying with a so-called technological culture”...

These various points were developed at the discussions between many intellectuals, writers and artists, who pointed out that it was impossible to bring about a true revival of black and African culture without reasserting intellectual and political freedom. □

L.P.

The Durbar, a once-in-a-lifetime experience

The most spectacular event of the whole of Festac outside the opening and closing parades was the "durbar" held in Kaduna towards the end of the festival. Many of the visitors in Lagos were attracted to make the journey north to Kaduna for this spectacle, partly because they had been told that it was the kind of occasion that was increasingly rare, a once-in-a-lifetime experience.

The durbar divided into two parts, an opening show on February 5, and a grand finale on February 8. The latter drew a crowd of 200 000 people, and took place in the presence of the Nigerian head of state, General Olusegun Obasanjo, and six visiting presidents (Angola, Cameroon, Mauritania, Niger, Togo, Upper Volta). Other guests of note included Mr Robert Bradshaw, Prime Minister of the Caribbean island of St. Kitts, and Mr Andrew Young, the US representative at the United Nations.

Both parts of the durbar were essentially the same event, a three hour ceremonial procession of over 40 traditional rulers from the northern part of Nigeria, involving over 3 000 costumed and mounted horsemen, ac-

companied by probably the same number of nobles, courtiers, court officials, footmen, warriors, acrobats and attendants. This was followed by a spectacular charge of selected horsemen for the benefit of the distinguished guests, a charge known in the Hausa language as the "jafi".

The word "durbar" itself, of Indian origin, was introduced into Nigeria early on in the colonial period. However, as Major-General I.B.M. Haruna, Nigeria's Information Commissioner, pointed out in his speech introducing the first durbar of February 5, the history of the event itself goes far back into pre-colonial times. "The history of our Sultanates and Emirates goes back for many centuries", he said. "For example, the Mai, the forerunner of the Shehu of Bornu, ruled at one time over vast territories now lying in Niger, Chad or Southern Libya. As far back as the early 12th century, Mai Dunama Humaimi could put 100 000 horsemen and 20 000 infantry and an impressive personal guard into the field".

For over half a millenium, said General Haruna, "the mounting of the horses" (in Hausa *hawan doki*) has been done year after year "in one part or

other of this country". He went on, "those who have arranged this ceremony for you to see are the Emirs of Nigeria, the traditional military leaders of their people. The word 'emir' means commander, and the forbears of our emirs were those who once held military command of their people. The composition of the various emirates depicts fully the armies of the past as being composite striking forces...".

It was the custom that when the crops were harvested and the food stored in the granaries, before the new farming season, the men of the emirates would turn to the fulfilment of their military obligations, said General Haruna. "But this *hawan doki* was much more than military manoeuvres. It was the work of a vigilant society, in which every able man, not once in a lifetime, but continually every year, played his part in the defence of the community against its enemies". The whole of society was thus mobilised, and the armies were "peoples' armies" in the true sense: "not only were the combat troops men who were farmers during the rest of the year, but the ordnance and supply services also were manned by a whole host of blacksmiths and coppersmiths, weavers and dyers, cordwainers and saddlers; artisans and craftsmen of every description". Musicians to entertain, and women to prepare food were also mobilised.

The Commissioner concluded: "the spirit of *hawan doki* is the spirit of the nation in arms... a spirit which we must surely recapture today in our struggle against the enemies of Africa, and more so in our search for social stability which allows for progress and the development of political institutions which we all desire".

The Nigerian head of state, in his speech to the second durbar, elaborated on these themes and stressed that the durbar was a means whereby a collection of people were "able truly to present their basic unity. In witnessing the durbar and savouring its splendid spectacle we are symbolically paying our respects to a civilisation that existed here in this country as well as in many other parts of Africa at various times in our continental history before the advent of imperialists from Europe". □

M.K. WHITEMAN



The Durbar was one of the most spectacular events of Festac 1977

BOOKS

Guides touristiques de l'Afrique (Tourist guides to Africa). — Senegal, Mali, Mauritania and Niger: Vol. I (Hatier 1975, with the collaboration of Air France).

Only a few hours' flying time from Europe or America, black Africa is there to be discovered by western tourists.

The 30 itineraries described in Vol. I of this series (Senegal, Mauritania and Niger) will help them select and organize their holidays, which will continue to have an exotic appeal for some time to come.

The itineraries go deep into Africa and there is vital, up-to-date information on geography, history and economics, as well as articles by top specialists explaining the most recent discoveries about Africa's past.

The guide will appeal to both the serious tourist and the businessman; cultural coverage is good and it contains a wealth of practical advice. With the latest information on roads and accommodation, 56 maps and plans, 450 photographs—in colour and in black and white—and eight natural history plates, this is an excellent practical introduction to West Africa.

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André ANGLADETTE and Louis DESCHAMPS. — **"Problèmes et perspectives de l'Agriculture dans les pays tropicaux". (Agriculture in the tropics — problems and perspectives).** — Editions G.-P. Maisonneuve et Larose, 11, rue Victor-Cousin, 75005 Paris, France — 772 pp. — 1976 — 240 FF.

This is a study of technical and socio-economic aspects of the specific problems of tropical agriculture, and of the whole range of solutions brought to them.

It is by no means an exhaustive work, but it is more than just a technical handbook. Angladette and Deschamps show what has already been achieved, what is

still to be achieved and how a study of the problems of tropical agriculture gradually leads to a view of the problems of under-development as a whole.

The grave problem of food supplies, particularly in the Third World, and the sense of crisis in the technically advanced countries are not unconnected. This book forces us to the conclusion that the development of tropical agriculture involves a complete rethink by industrialized countries of their models for growth. It is a substantial contribution to thinking on a particularly topical issue.

ooo

Patrick I. WAKELY, Hartmut SCHMETZER and Babar MUMTAZ. — **Urban housing strategies — Education and realization.** — London, Pittman publishing Ltd. — 1976, 117 pp. £4.95.

This is an eminently useful book for any practitioner of planning and housing development. Drawing upon the experiences of the Development Planning Unit, School of Environmental Studies (University College, London) the book synthesizes the material of six-to-eight week courses for architects and planners in developing countries, courses which concentrate on teaching the working methods of identifying housing needs and creating realistic housing strategies.

The teaching approach which was developed in these courses is project-based with the emphasis on identifica-

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tion of user-needs and the search for policies and strategies. The first part of the book is an elaboration of the theory of teaching professionals to plan for urban housing, rather than the former static, design-oriented approach.

As such, part 1 serves a useful guide for teachers, especially for teaching professionals "to cope with problems for which no text book solutions or Western precedent exist".

"Tools and Techniques", the title of part 2, consists of techniques for dealing with the specific major issues as outlined in part 1, and makes an excellent reference work for drawing up a work programme.

The methodologies presented are sufficiently detailed and technical as to avoid making this book just another vague listing of all the elements the planners should think about, but rather a truly practical manual of procedure.

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