

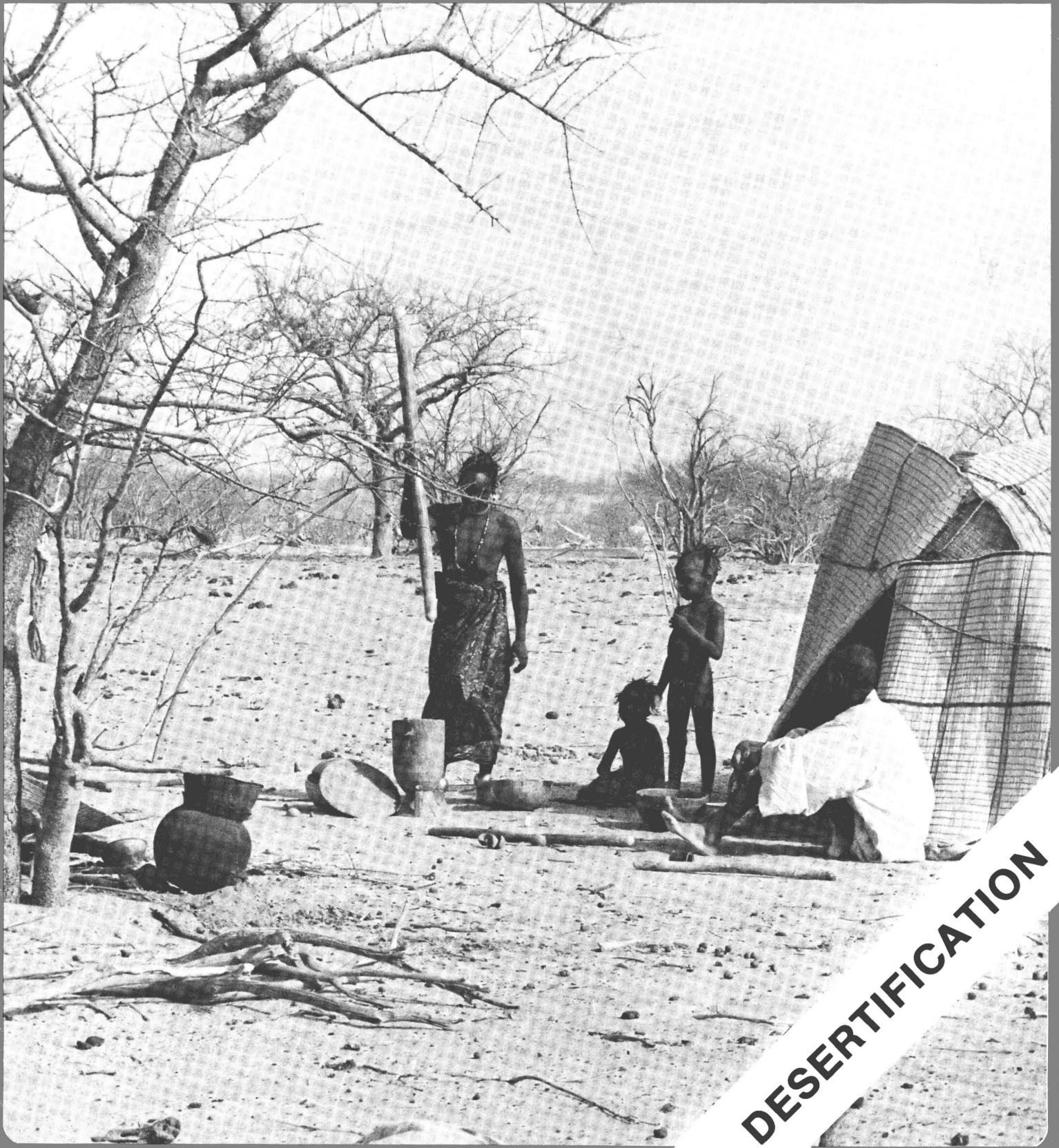


the courier

EUROPEAN COMMUNITY — AFRICA-CARIBBEAN-PACIFIC

Published every two months

No 47 — JANUARY-FEBRUARY 1978



DESERTIFICATION

Season's greetings

THE EUROPEAN COMMUNITY

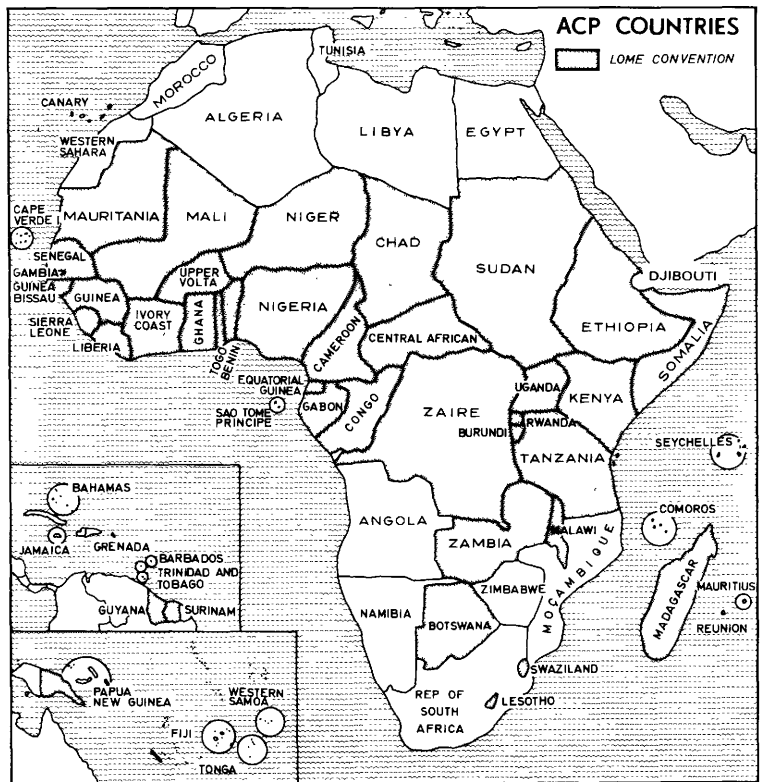
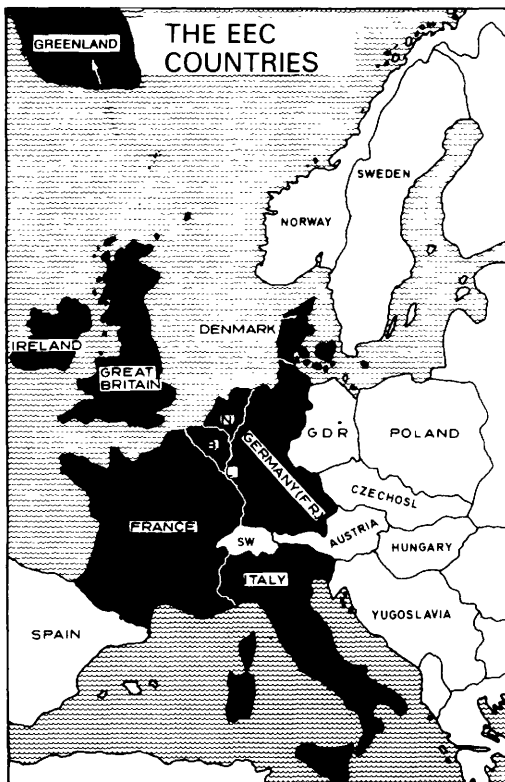
BELGIUM
DENMARK
FRANCE
GERMANY
(Federal Rep.)
IRELAND
ITALY
LUXEMBOURG
NETHERLANDS
UNITED KINGDOM

THE ACP STATES

BAHAMAS
BARBADOS
BENIN
BOTSWANA
BURUNDI
CAMEROON
CAPE VERDE
CENTRAL AFRICAN
EMP.
CHAD
COMOROS
CONGO
EQUATORIAL GUINEA
ETHIOPIA
FIJI
GABON
GAMBIA
GHANA

GRENADA
GUINEA
GUINEA-BISSAU
GUYANA
IVORY COST
JAMAICA
KENYA
LESOTHO
LIBERIA
MADAGASCAR
MALAWI
MALI
MAURITANIA
MAURITIUS
NIGER
NIGERIA
PAPUA-NEW GUINEA
RWANDA

SAO TOME PRINCIPE
SENEGAL
SEYCHELLES
SIERRA LEONE
SOMALIA
SUDAN
SURINAM
SWAZILAND
TANZANIA
TOGO
TONGA
TRINIDAD and TOBAGO
UGANDA
UPPER VOLTA
WESTERN SAMOA
ZAIRE
ZAMBIA



THE COURIER

EUROPEAN COMMUNITY —
AFRICA - CARIBBEAN - PACIFIC

No. 47 — January-February 1978

CONTENTS

2. **EDITORIAL:** Man the desert-maker
3. **Interviews:** Lise Østergaard (Denmark): the Scandinavian approach to development
8. **Lucien Outers (Belgium):** "80 % of our aid goes to black Africa"
12. **Euro-Arab dialogue:** a two-way investment

AFRICA - CARIBBEAN - PACIFIC

15. **Pictorial record of the ACP-EEC Council of Ministers in Fiji**
18. **Papua New Guinea:** priority to agriculture and social development
20. **Sao Tome and Principe:** a difficult economy to change
22. **Can ECOWAS survive?**
23. **What the rich countries must learn from the poor**
24. **The activities of the Centre for Industrial Development**
27. **In perspective:** masters and apprentices
28. **DOSSIER: Desertification**
30. **The problem of desertification**
32. **Stop desertification by the year 2000**
36. **After the Nairobi conference:** what are the next steps?
38. **A map of desertification in Africa**
40. **Development and desertification**
42. **Man — creator or victim of the desert?**
44. **Bringing the Sahel back to life**
47. **Land resources degradation**
50. **Physical and biological processes that cause desertification**
51. **The herdsmen of the Sahel**
55. **Niger: the Agadez and Arawak regions**
58. **Sudan: \$26 million to halt the desert**

Community aid

61. **EDF action in the fight against desertification**
63. **Action against drought in the Sahel, Ethiopia and Somalia**
65. **Alternative technology: a critical choice for developing countries**
69. **United World Colleges: an international education**
72. **The protection and conservation of nature**
73. **EEC food aid: progress, problems and prospects**

EDF PROJECTS

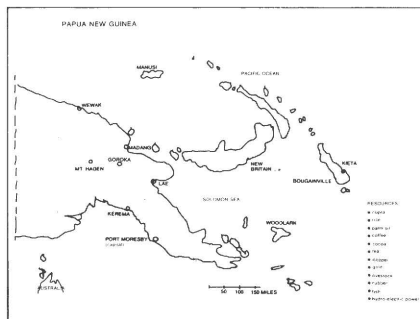
79. **Sudan: the university of Juba**
81. **Niger: Toula hydro-agricultural scheme**
83. **Questionnaire for "Courier" readers**
84. **BOOKS**
- NEWS ROUND-UP (yellow pages)**
- I. **Zambia: ACP ministers meet in Lusaka**
- V. **Lesotho: ACP-EEC Joint Committee**
- XI. **Cameroon's Vice-minister Robert Naah in Brussels**

Denmark — The Danes start their six-month presidency of the EEC Council of Ministers on 1 January 1978. During this period the ministers will be preparing for the Lomé II negotiations. Lise Østergaard, Danish Minister without Portfolio at the foreign ministry, discusses the role of women in development and describes the Scandinavian character of Danish cooperation: it is largely multilateral (45%), aimed at the basic needs of the poorest people and planned over several years. **Page 3**



Belgium — The coalition government (Christian Democrats, Socialists, Volksunie, Francophone Front) set up after the April 1977 elections has created a development ministry (development previously came under the foreign ministry). The new Minister for Development, Lucien Outers, explains the geographical and economic basis of Belgian aid policy and stresses the importance of coordinating European bilateral aid. **Page 8**

Papua New Guinea — Independent since 16 September 1975, this new Pacific state (east of Indonesia and north of Australia) joined the Lomé Convention last year. It has a population of around 2 1/2 million and its considerable natural resources (minerals, timber) provide a sound basis for economic development. **Page 18**



Dossier — Deserts used to be considered a natural phenomenon, to which nomadic herdsmen had adapted their age-old way of life. But the deserts are spreading, and a closer look at this phenomenon of desertification shows that the causes are by no means always natural. In Nairobi recently, the United Nations held an international conference on desertification, UNCOD, which examined the causes, consequences and possible solutions to the threat of the advancing deserts. **Page 28**

EDF Projects — South Sudan now has its own university in Juba, recently opened by President Numeiri. It is of importance not only to the young people who would otherwise have had to pursue their higher education in Khartoum or another university town far from home, but also to the country as a whole. Juba University, built with EDF aid, is designed to fill some of the Sudan's most pressing practical needs. **Page 83**



Man the desert-maker

The UN has maintained a regular series of conferences on the great problems of our times; the environment conference in Stockholm in 1972 was followed by food in Rome, population in Budapest, women's rights in Mexico, housing in Vancouver and water in Mar del Plata. The most recent UN conference, on desertification, was held in Nairobi last autumn.

The frequency of these conferences has given rise to a certain amount of sarcasm. But who can deny the usefulness of taking stock of one of the earth's major problems by bringing together those best qualified to analyse the situation and recommend solutions to the governments? It is certain that Nairobi dealt with an important issue, that the conference was extremely well prepared and that there was a high level of debate. A 'Plan of Action to Combat Desertification' was adopted and it was decided to set up an advisory group to coordinate activities and raise the necessary funds. Developing and developed countries failed to agree on this last point, the latter stating that there was no question of them bypassing existing UN channels. But this should not overshadow the importance and the positive aspects of the conference.

This was the first international conference on desertification and it dealt with a problem that affects two-thirds of the world directly and the whole of it indirectly. One third of the earth's surface is arid and the advancing desert claims 5-7 million hectares of agricultural land every year. The UN General Assembly decided to call the conference in December 1974, after the great Sahel drought. Five hundred experts spent two years drawing

up a draft plan of action and this was then discussed at four preparatory meetings for different continents. The Plan runs into 90 pages and contains 28 recommendations on land management, water conservation, protection and reconstitution of vegetation, human settlement in affected areas, regulation of traditional sources of energy and the search for new sources.

Generally speaking, the recommendations it contains are based on common sense. They are accompanied by concrete examples and followed by scientific and technical details. Emphasis is placed on the need to set up integrated national schemes, in the light of the political, economic and social features of each country, and on the maximum involvement of the populations concerned. The Plan is of great importance. It is the international community's answer to the threat of desertification and it emerged from the conference considerably strengthened and improved. Delegates went into the human side of the problem at great length, this being an aspect that the authors, scientists in the main, had tended to neglect.

Man is at the heart of the matter and man is the prime maker of deserts. Climatic variations can, of course, contribute to desertification but climate has varied in every century. What is new now, what has become increasingly destructive, is the population explosion that forces man to ask more of the land than it can give. The population of the Sahel has doubled in 28 years. Livestock doubled in the space of 15 years (in the '50s and '60s). Most experts claim that the 1968/73 drought was particularly devastating because health campaigns had increased livestock

and new water-holes had attracted vast numbers of animals which started the desertification process off by trampling the ground. Some say it was not the desert that was advancing but the Sahel that was being destroyed through the practice of burning the land, the effect of the herds of sheep and goats, and deforestation. Many people will be surprised to learn that "for two-thirds of mankind, the real energy crisis is a daily struggle to find enough wood to cook with." For the problem of desertification is world-wide and neither Asia, Australia nor South or North America have been spared. In western America, vast areas have been cleared for farming. Too many trees and hedges have been cut down, making the reconstitution of the soil precarious and paving the way for erosion by wind and rain.

Desertification has always existed and areas fertile in ancient times are fertile no longer. But over the last few decades, the phenomenon has gained ground, largely due to the population explosion and its consequences. It is reckoned that if nothing is done to counter the present trend, one third of currently arable land will be lost to the combined effects of deforestation, unsuitable farming methods and industrial and urban growth. But, however well-founded the experts' warnings, they cannot overlook existing cultural, social and economic structures. Everywhere, the people concerned must be involved in the fight against desertification and, as always, it will take information and explanation to convince them their help is vital. □

ALAIN LACROIX

DENMARK — LISE ØSTERGAARD

The Scandinavian approach to development

Denmark, which joined the EEC in 1973, began its involvement in EEC cooperation policy with the negotiation and signing of the Lomé Convention. Still closely cooperating with the other Nordic countries, it brings a Scandinavian touch to the EEC's development policies. This is especially true now with Denmark in the chair of the EEC Council of Ministers.

In the following interview with the "Courier", Lise Østergaard, foreign affairs minister without portfolio, outlines some characteristics of Danish cooperation policy.

► *Denmark means to reach the aid target of 0.7% of GNP by 1979 (Denmark gave 0.56% in 1976). How realistic is this, in view of the economic difficulties of the last few years? And will you stop at 0.7%?*

— I think it is absolutely realistic and I feel convinced that we shall reach the 0.7% target in 1979 as we had planned to do. I feel so certain about it because we are working with what we call rolling five year plans and we have got broad parliamentary support for this administration. In this five year plan we have clearly stipulated the target of 1979 and I do not think that even acute economic difficulties would change this political decision because it has such solid support in Parliament. We feel that we should not try to alleviate our present difficulties in the short run by cutting down the development programmes and projects which are on a long term basis. We would find it unjust and impractical if variations in our economy interfered in a negative way.

Again you asked me whether we intend to stop at the 0.7% target and my answer is that I do not think so. I hope that we can keep the same growth rate for our development aid which we have had during this decade.

The basic needs strategy

► *Some 90% of your bilateral aid goes to the poorest countries. Can they make as much use of it as the slightly more advanced countries?*

— That's a very good question. I appreciate your putting it because I think it is extremely important to be clear about our aims with development

Known internationally as a clinical psychologist, one of the first women to become a doctor of psychology in Denmark, she shows an analytical and humanitarian approach to the main problems she is dealing with: North-South dialogue, human rights, disarmament and development aid. Stressing the importance of the basic needs strategy, she refers specifically to the impact of development policies on women. The minister also gives her preliminary views on the forthcoming discussions on a new EEC-ACP convention.



LEO JOURDAN — OCDE

Lise Østergaard

Minister without Portfolio at the Ministry of Foreign Affairs

aid. If you took that question further you could say that by giving aid to very rich countries, the output might be even greater, measured by the economic parameters we have available. But I think that we have firstly a moral obligation to direct our aid to the poorest countries because the human needs are greatest there. And I feel that you cannot measure all the ways aid is used. By this I mean that you may have countries which are so underdeveloped that you must have some kind of development which comes before the type of development which can be measured. If people are starving, if people are illiterate, they need support in order to overcome these shortcomings, but you cannot measure the effect of it immediately. If you do not overcome these very basic needs, you will never reach a development which can be measured. So from that philosophy

alone I feel, it is very important that we do direct our aid to the poorest populations, and we intend to go on doing that.

► *Danish bilateral aid is concentrated on India, Bangladesh, Kenya and Tanzania, for which pluriannual aid planning procedures have now been established. Do you particularly approve of these countries or their kind of development thinking?*

— Well, you are right in stating that for these four countries we have developed a pluriannual aid planning procedure. But I would not agree that our bilateral aid is concentrated only on these four countries. They receive approximately 40% of our bilateral aid. From the historical point of view, we started channeling all our aid to the multilateral agencies in the early '60s. During the years after that, we did develop cooperation with a larger number of countries, but we soon realized that it was too scattered, and we felt that the effect was too small. So we narrowed it down to less than ten developing countries and today we are concentrating with the pluriannual programmes on these four countries. But the remaining 60% of the bilateral programme is actually distributed to about 50 developing countries, so we have quite a number with whom we have not got this long-term planning, but who profit from the bilateral aid as well. I should make a few remarks about our loan programme, because bilateral aid is divided with half as grants for direct projects and half on a loan programme. And here we are concerned again with the poorest developing countries with a per capita GNP of less than 300 dollars. We will make some changes because of the effect of

inflation, and follow the IDA(1) more or less, still concentrating on the poorest countries. I can mention Tanzania as an example. Tanzania has received several loans, as many as eight up to an amount of more than 70 million dollars. As to your question about whether we favour these countries for specific reasons, I can say that apart from working with poor countries we have favoured English-speaking countries. You may question the wisdom of that but, if we want to send Danish experts to developing countries it works more easily when we are dealing with countries speaking the same language. I would like this to change, because I want us to be more international. That's one reason. But we have no particular preference for any kind of economic development, be it capitalist or socialist of whatever you might call it. We simply want to support economic

and social development in the poorest countries.

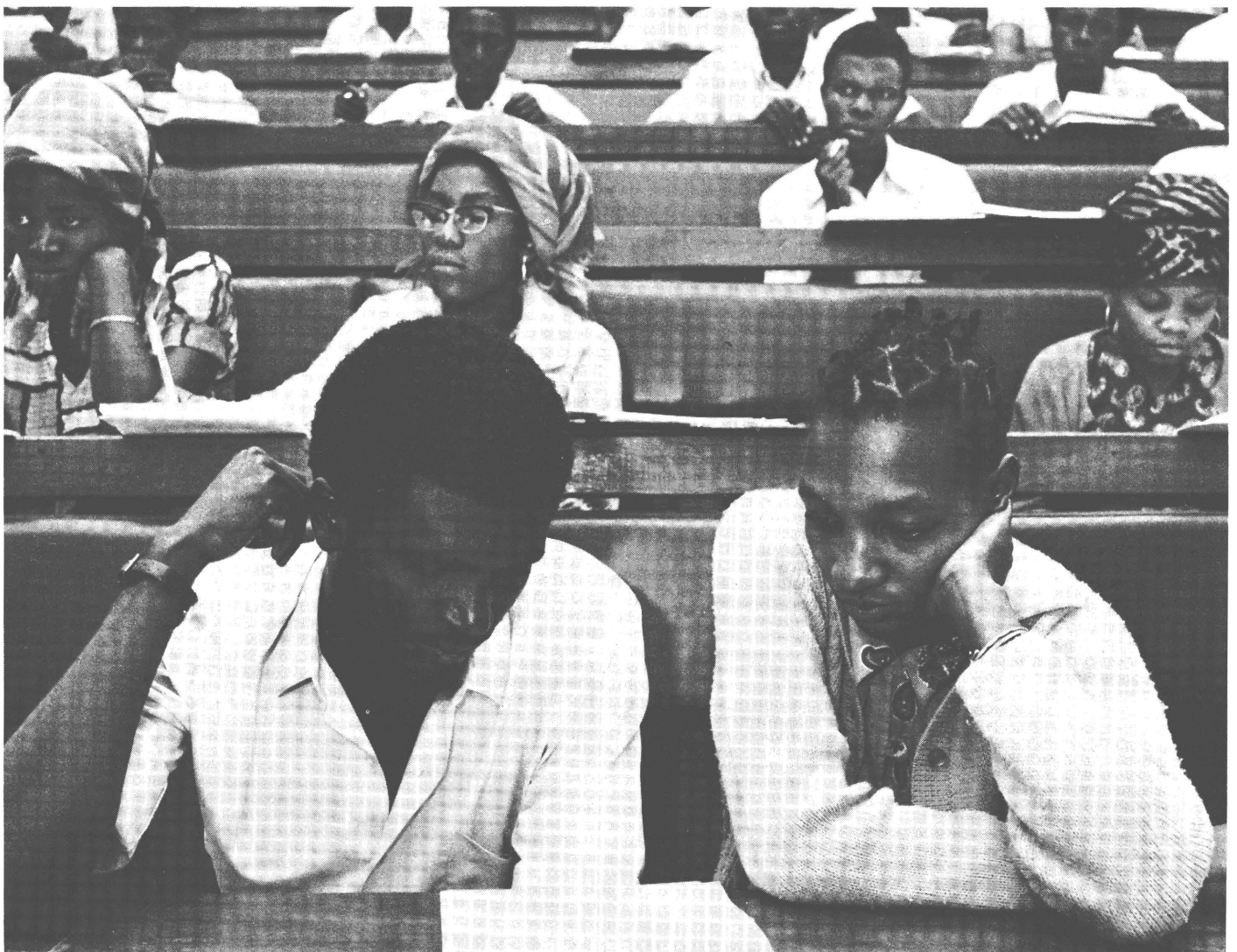
1 % GNP goal less important

► *Private Danish investment in the developing countries fluctuates considerably from year to year. How does the government encourage it and what is your industrial cooperation policy?*

— In our industrial cooperation policy we wish to see Danish private investments in developing countries contribute increasingly to positive social and economic development in the host country. I admit that the picture may seem to be fluctuating and I think the reason is that the investments from a small country like Denmark come from a very small number of enterprises. You cannot avoid a fluctuating picture because we don't have large enough enterprises to show a more permanent trend. It has been a little bit on a trial and error basis. Also, we have not attached very much importance to the

international 1% of GNP goal which refers to the total amount of private and official financial resource transfers. We put much more emphasis on the 0.7% goal for official assistance because in Denmark the government doesn't really "push" private enterprises. We try to make it attractive, we try to make it as easy as possible for them to make investments. The main instruments we have are the Official Scheme for Investment Guarantees and we have what we call the Industrialization Fund for Developing Countries. This Fund is non-profit making, and is a self-governing institution which was set up to encourage Danish industries to make direct investments in developing countries. Support from the Fund may take several forms: it may take the form of share subscriptions or of loans for feasibility studies or for other pre-investment activities. The Fund also takes part in joint ventures together with local investors in the developing countries.

(1) International Development Association.



JESPER KIRKNAES — DANIDA

Men and women should have an equal opportunity to benefit from development. Farming college at Morogoro (Tanzania) built with Danish aid

► *Denmark is a relative newcomer to the EEC (1973) and has stepped straight into the Lomé Convention. How are Danish firms doing as regards contracts under the Convention?*

— We do register a strong interest among Danish firms. Both export contractors and consultants are participating in projects and in deliveries financed under the Convention. We also feel that we are given a good opportunity in fair competition with other Community countries, and we are very satisfied with the continuous efforts of the Commission to ensure all the member countries equal access to contracts under the Lomé Convention. As you rightly mention, we haven't had too long a period to work in, and it is a bit too early maybe to evaluate the use we have made of the possibilities, but we do appreciate them and the interest is there. The current initiatives in Denmark include official support to trade organizations and firms who are interested in information meetings with officials from the Commission in Brussels, and also in the circulation of tender documents and other materials concerning projects.

Too great a gap to build a bridge over

► *From your experience of Lomé so far, what ideas does Denmark have on Lomé II?*

— Well, it has been effective for a short period of about two years and I can give only preliminary considerations, but we would perhaps like to improve and strengthen the system of multi-year programmes, which we have found very useful in our bilateral cooperation. We would also like to feed some experiences from our bilateral cooperation into the programming and direct administration in Lomé II. We feel that the establishment of the country officers in almost all ACP countries has improved the possibilities of long-term planning and we welcome that. Lomé I has been a period of experience. Now that we have country officers I think it is important not only that you have a sufficient amount of contact, but also that the contact is on the right level. There may have been a tendency under Lomé I for the negotiation and the establishment of the programmes to be set on too high a level and over too short a period. You may have too great a gap to build a bridge over and I think that if you gradually

establish a more direct and concrete contact with local officials that may improve the planning of the projects. You need a longer period too if the basic needs strategy and integrated rural development is to be adopted effectively. I would like to mention also an innovation in the Lomé Convention, the Industrial Development Centre. We hope this Centre will be able to play an increasing role in assisting the ACP countries in the selection, transfer and invention of technology adapted to their needs. It is crucial to find the appropriate technologies to fit particular needs. And in this connection, I should like to mention again the strong emphasis we put on the "basic needs strategy", as I know other member countries in the EEC do. Experiences so far with Lomé I have been positive, and this not only applies to the assistance which is provided under the European Development Fund and industrial cooperation, but also to the provisions in the field of trade and commodities and of course here it is Stabex which represents a significant innovation. With these experiences we feel positive about future development under Lomé II.

Denmark in the chair

► *Denmark will be chairing the EEC Council of Ministers for the next six months (January-June 1978). Will you try to use this position to achieve any particular aims in development cooperation?*

— Of course we want to make the best effort we can to further positive trends in the EEC's development policy. We want to stress the aim of a substantial increase in the volume of official development assistance. I think this is a very crucial problem.

We want to see an effort being made from the economically stronger countries like ourselves, to live up to United Nations goals and I think we need to make a joint effort in that respect. I also want to stress that aid should be distributed in such a way that the poorest populations in the developing countries will gain from the aid. This may sound a purely humanitarian attitude. Of course there is a humanitarian attitude behind it, but more than that I am convinced myself also that this is where economic growth begins and I feel that it is very often disregarded because it is easier to measure the development at the later phase. But

you should not disregard the first part of a growth curve because the rate is more rapid in a later phase.

I would also like to mention a proposal that has been put by the Nordic countries to the UN special session on disarmament: the session which is going to be held in May-June 1978 also during our period as chairman. The Nordic proposal is to make an evaluation of the consequences of the arms race not only what you can measure economically, but also an estimation of the use of manpower, of intellectual skill and research and of course of money. We would like to make this analysis in order to see how to transfer this heavy use of resources for destructive purposes to constructive purposes. It would be too naive to say that what you would save by successful disarmament negotiations could be transferred directly to development aid. We need to make it reasonably feasible that part of what was saved on disarmament would be used constructively on a world basis for development.

Another issue which I find is important is to deal with the non-associated countries. We feel that the non-associated countries should be considered seriously from the point of view of the Nine and we should improve EEC aid to the non-associated countries. It should be increased substantially but in my experience from the only meeting I have personally attended of the Development Council, there is a great divergence of opinion as to geographical distribution. I think we should try to see how far we can resolve these divergencies.

Aid should not harm women

► *In the developing world, women are often left out in the cold. In three EEC countries women are in charge of development cooperation—Judith Hart in Britain, Marie Schlei in West Germany and yourself. Would it be too simple to hope that women in the developing countries will now get more attention from the EEC?*

— It is not too simple. It is a very realistic aim which I hope we can fulfil. I hope at least that "gender-role conflicts" can be resolved or worked on so that men understand the needs of women as well as women do. There is now of course a certain incentive. I feel a very special obligation to be aware of women's problems in areas where they



Danish development loans often finance complete factories, such as this dairy in Kenya

are not taken account of sufficiently. It is very crucial and very fundamental. We should first of all ensure that our aid programmes do not harm women. It may sound ridiculous that this could be the case but, as a matter of fact, we do know that in some cases the efforts which we make through our training programmes, through our development projects, actually do change the sociological framework in a developing country. These changes may be positive in the long term but they may be extremely harmful to the weakest part of the society in the short term. Already in some parts of East Africa where agriculture was in the hands of women, these structures were changed. Before that for instance the women had the right to sell surplus harvest which they didn't use for their family. As soon as you changed that balance or that sociological structure by improving soils, the land became precious. Before that land was owned by nobody because you could just take new land if you wished to. Now that land has become precious, the right to own land has been given to men, because that is what we do in our countries. So we changed the economic rights of women totally with the improvement in agricultural techniques. I think the first thing we should do is to be aware of

that fact and to compensate for it. That should be the first step. The next step should be to have specific projects to improve women's conditions, knowing that women are usually a weak group. I'm thinking of access to education. As long as you do not have access to education you are completely helpless in a society. We should not only give women such possibilities, but try to get the developing countries to realize that it is in their own best interest to make education available equally to boys and girls. Of course it is extremely important to be active in family planning and in the area of hygiene. I think there are very basic cultural trends in people's sexual lives, in people's ideas about birth which are dangerous for women. These are traditions we should deal with very carefully because it is always easy to step like an elephant on cultural ways which have existed for many years. Here I feel again that the best measure is education. As soon as women learn about, and are in command of, their own bodies they can make their own decisions. That should be one of the most important steps, to help women to have a safer and more just life.

► *Will this also mean that Denmark will try to get more female participation*

both in its own bilateral and in the EEC's cooperation policies?

— The question of women's rights in the developing countries has been considered by the whole personnel of DANIDA(1). We have research projects dealing specifically with the situation of women in developing countries. It is very important to be aware of the importance of having women employed in the international organizations. But again I feel it would be wrong if we thought that only women could further women's interests, although I do think that a woman's way of thinking is a very important supplement to a man's way of thinking. We should create a new atmosphere in DANIDA—just to mention our local organization—in international bodies and wherever possible. Again it is my private philosophy that access to superior posts in administration and policy formation should not be opened for the sake of individual women. But women often reason a little differently from men and I think we can only reach a more harmonious way of administrating the world if we let these two ways of thinking, these various approaches enter into the total picture.

(1) The Danish International Development Agency.

The information link

► *Before joining the Community, Denmark played an important part in the Nordic countries' consultations on coordinating development cooperation. Are these talks still going on, and if so does Denmark see herself as an intermediary between the Scandinavian and the EEC approaches to development?*

— My answer to both questions would be affirmative. The consultations are still going on. We are like-minded, we have the same outlook on the main issues and we have close contact with each other. We also have joint projects and we intend to go on working jointly whenever this seems to be a practical idea. We do find that we are some kind of information link between the EEC and the Nordic world, which our friends in the other Nordic countries do appreciate. But I think we should not forget that we have another forum for exchanging opinions and this is the Development Assistance Committee of the OECD where European countries, Nordic countries and other Western countries meet. So we have lots of opportunities to exchange views.

► *I was particularly thinking that in most of the Nordic countries at least half the aid is multilateral.*

— This is also the fact in Denmark. Practically half of our aid is multilateral and we have no plans of changing that. I understand that some other European countries, maybe particularly those countries who have a past as colonial powers, are different. They feel specific obligations to their former colonies and that may lead them to give more bilateral aid. But being without these direct ties we feel that it is quite a reasonable policy to have half of our aid channelled through multilateral organizations.

We don't expect thanks

► *Does the lack of a colonial past influence Denmark's thinking about development cooperation?*

— It does in one respect. By channelling so much of our aid through UN organizations, we strengthen UN policy. In UN organizations the developing countries are member countries themselves and this means that they have a direct influence on the way in which the funds are spent. I think this is a reasonable and just thing. That's one



"Today power is more dependent on know-how than on money"

side of the question. Another which may be specific to a non post-colonial country is the fact that the aid given through multilateral organizations does not bind the recipient country to the donor country. It gives them a greater freedom. We do not need the direct credit or gratitude for the aid given. I think that what is important is to further world-wide economic growth and development. It is important that the UN position is strengthened, as well as the EEC's. I'm however a little more hesitant about the tendencies in some countries to work directly with a few developing countries in order to keep influence there. I think we should work against that tendency.

► *How does Danish public opinion react to development aid and what are you doing to inform public opinion about both national and European development policy?*

— I myself talk about it as often as people are willing to listen. I think it is very important that we do keep the interest of our media in development policy. I keep contact with a number of journalists who are specifically interested in development policy and am very eager to give them information. In a few weeks we are going to have quite a long TV programme in which our general development policy is discussed. Television journalists have been visiting some of the Danish projects in East Africa and in India and they are going to show the results. I also try, when on bilateral political visits, to combine these with visits to our programmes in order to improve public interest. It creates some interest if you visit some of the projects. We also put strong emphasis on informing the public on the link between aid and

trade, because I think it is extremely important that we counteract the tendency to protectionist trade policies. It is important to inform the public of the fact that structural adaptation in our own industry is necessary. It may be an obstacle, it may give us difficulties in the short term, but we should realize that what we aim at with our development aid is to gain increased economic growth worldwide and that will improve the Western economy. I think it is very important to keep this debate open.

A NIEO: a matter of security

► *What do you see as the basis of a new international economic order and what can Denmark do to promote it?*

— It is an absolute necessity to work towards a new and more just economic world order. Again this is for humanitarian reasons, but it is not only so. It is also a question of security: you could not pass on a world to your children or grandchildren with such strong injustices and whose security is therefore put at risk. I think that these two aspects of the problem are very important. But what do we do right here and now? How is the CIEC going to continue? Negotiations on a common fund, and the stabilization of international markets for all materials, are now in the foreground. It is important for many practical reasons but also because it seems to be a test case from the point of view of the developing countries. It seems to be "the issue" by which they want to measure our political will and I think we should meet that challenge in a positive way. The Conference on Science and Technology for Development which is going to be held in 1979 is also extremely important because although the need to transfer capital is evident, the need to transfer technology is even greater. After all many of the developing countries have got capital, but they need to know how to use it. Today power is more dependent on know-how than on money. This means we must find appropriate ways and means of transferring technology to build up technologies in the developing countries which they can gradually utilize themselves and enlarge. The multinational companies' investment in developing countries should aim at sharing technical know-how to make more equal partners of the developing countries. That must in my view be our long-term goal. □

Interview by
ROGER DE BACKER

BELGIUM — Lucien Outers, Minister for Cooperation: “80 % of our aid goes to black Africa”

Development cooperation, placed under the foreign ministry in Belgium for a long time, has been set up as a ministry in its own right by the four-party coalition government that emerged from the 1977 elections. The new minister, Lucien Outers, describes Belgian development cooperation in this interview. He agrees with his German counterpart Marie Schlei (see “Cou-

rier” no. 46) on the need to coordinate bilateral European aid, and his position as chairman of the EEC development ministers for the last six months has helped in this respect. Mr Outers also underlines the value of international cooperation in bringing together different cultures.

► *Mr Outers, what are the main features of Belgian aid — the amounts, the kinds of projects, the choice of countries?*

— First the amounts. As you know, the last North-South Conference set the target for 1980 at 0.7% of GNP. When I first came to the department, Belgium was up to 0.62%, which wasn't bad, and we were among the leading industrialized nations in this respect. I see now that the group of countries bringing up the rear, Japan, the US and Germany that is, only give 0.29% or 0.26%. That is to say that Belgium, along with the Netherlands, France and the Scandinavian countries, is in a very creditable position.

**0.66% of GNP:
“we should try to
broaden our horizons”**

In spite of the crisis, I have managed to get the government to raise our contribution to 0.66% and I am fairly sure that we will make the 0.7% target in 1980.

Now for the geographical breakdown. 80% of our aid goes to black Africa, 10% to the Maghreb, 5% to Asia and 5% to South America. There are no ideological reasons behind this, only historical ones. Obviously, we had

Lucien Outers

The new Belgian cooperation minister worked with a number of international organizations in Europe and for the UN between 1948 and 1962, when he entered politics. Mr Outers, 53, has been general secretary of the French-speaking Belgian movement *Rénovation wallonne*, a member of parliament for Brussels and a member of the European parliament. He is now mayor of a Brussels suburb (Auderghem) and a member of parliament for Liège.

quite considerable obligations in Africa and it was natural for us to concentrate on this continent since we knew it relatively well and, above all, we understand the psychological make-up of the people. And we also had priority requests from African countries, so our choices were made empirically.

However, I think things are somewhat unbalanced as they stand and that we really should try to broaden our horizons a little. This was what my predecessors were doing when they established relations with a number of south-east Asian countries, Indonesia and Malaysia, for example. I myself have just come back from signing some quite important cooperation agreements in Vietnam. We, must also



do something about South America. We have a cooperation agreement with just one of the countries there, Peru, but we do work under contract in several others. Cuba, for example, Bolivia, Guatemala and Ecuador.

► *How much of your total aid is loans and how much grants?*

— My department gives practically all its aid in the form of grants. The Ministry for Finance makes country-to-country loans. I can already give you a figure for the breakdown. 36% of our aid is multilateral and 64% bilateral. We assist in a variety of sectors: agriculture, education—this is very important and accounts for more than half our aid—and all sectors of industry, particularly transport, railways, seaways and waterways, as this is a field where we have a certain amount of technological experience.

► *As chairman of the Community's development ministers, you have just been on a tour of European capitals. Why did you feel you had to do this?*

— First, because I think meetings must be prepared if they are to be of any use. If every minister was left to his own devices with no idea of the points of view his colleagues might evolve or expound, there is every likelihood that we would have to postpone discussion of certain items or resort to compromise solutions, which is not always a satisfactory way of doing things.

**Bilateral aid
must be coordinated**

Second, I am very interested in one of the items on the agenda, that is the coordination of bilateral aid. This is a great concern of mine because I have

realized, particularly on my trips to Africa, that industrialized countries, especially European ones, running cooperation schemes in the Third World tend towards rivalry or open competition rather than complementarity. We are rather like charity ladies in the 19th century, squabbling over our poor and anxious not to knit for the same needy case, although it is the one we are supposed to be helping. This is obviously a fairly distressing attitude and I think that, in the interest of both recipient and European countries, there must be a minimum of coordination.

Back in 1974, at Germany's instigation, the Council of Cooperation Ministers voted a resolution which required us to inform the Commission of our various bilateral aid projects so that coordination could be carried out at Community level. I think this was too ambitious and not very effective. Why? Clearly because some continents and some developing countries are the concern of some, but not necessarily all, of the EEC countries. I see no reason for involving all nine member states in what is being done in a given country if only two or three of them are running schemes there. Why must everybody be involved? I think this is wrong. That is why we ought to adopt empirical, practical solutions and that is why I am going to try to get a resolution adopted to emphasize the need to coordinate the activities of just the EEC countries who have an active interest in the recipient countries in question. If three or four European countries are working in Zaire, for example, they must get together.

The second thing I want to do is try to create standing inter-state cooperation committees. We already have something of this sort between Belgium and Germany. It is very useful to be able to exchange information, discuss joint schemes and compare experience. I have also decided, in my capacity as Belgian minister, to set up a similar committee with the Italians and I hope to be able to do the same with the French. Why? Because France is, clearly, the country which, for historical reasons, has the strongest foothold in Africa. Our influence, too, is strong and this is why both our countries must collaborate effectively, although we need not collaborate alone. A third country could be brought in. Germany, France and Belgium already have a tripartite coordination

committee for certain projects. This is what needs to be done.

Where does the Commission stand in all this? It could be important because we need coordination of member states and Commission projects, particularly those of the EDF, which also has a positive role to play under the Lomé Convention. Commissioner Cheysson has made an enormous effort to develop the Commission's activities in this respect, but he has often come up against a lack of enthusiasm. I think we should set up a procedure that will make things easier, particularly as regards information.

Everyone should know something about what is going on. I have drafted a text that I am hoping to put before the next meeting of the Council of Ministers.

There are two schools of thought in the Common Market at the moment. There are those who want everything to be done by the Nine and there are those who don't. My text is halfway between the two and I hope it will satisfy everybody.

► *How do you think agriculture should compare to industrialization in the overall development strategy?*

— You know, five years ago, industrialization was a kind of fashion. Anyone who didn't push rapid industrialization for the developing countries was a philistine, quite a charitable label bearing in mind they looked upon us as colonialists almost. But then it emerged that, if industrialization went too quickly, it created very serious imbalances. It takes more than 10 years to replace old agrarian or pastoral civilizations. Destroy the sociological infrastructure in these countries and you create a sort of urban sub-proletariat in the towns and the big cities, which reach gigantic proportions. You create vast slums round the towns and on top of that industrialization only benefits the few.

Towards balanced development

So here, as elsewhere, development has got to be properly balanced and take the country's traditions and history, as well as its economy, into

account. This is why I am concentrating on agriculture at the moment. That is to say we are boosting the development of agricultural products (cotton, for example) for industry and we are boosting food crops. Some countries which used to be among the world's leading exporters of cotton now have to import. This shows that mistakes have been made. And internal markets must also be created for the benefit of the population as a whole. I am very much in favour of small projects involving the people themselves, since this sort of thing ensures both survival and development.

► *Negotiations for Lomé II are due to start in 1978 and there is talk of broadening the scope to include such things as fisheries, the promotion and protection of private investments and human rights. What points do you think should be emphasized in the light of our experience to date?*

— I have already had the opportunity of discussing human rights with some of my colleagues. Human rights are an ideal to strive for, but we have yet to agree as to exactly what we mean by them. If we mean a political system like we have in West Europe then it would obviously be absurd to include human rights as one of the aims of the Lomé Convention. Why is this? Because even in politics everyone has his own traditions. Everyone adopts the political system that best suits his country's outlook and history. Trying to force a British-type parliamentary system on all the countries of the Third World would be utopic in my opinion. And there would be no more cooperation because the vast majority of these countries have opted for different systems.

Towards a flexible formula for human rights

However, if by human rights we mean a minimum of respect for what would appear to be absolutely vital rules, then I am in favour of them being included, perhaps not in the body of the Convention, but at least in a preamble which could point out that the Nine really aren't willing to help just anyone on any conditions. Lomé means cooperation and it seems reasonable that the industrialized countries too should have an idea of the minimum condi-



Mr Outers with Burundi ambassador Jérôme Ntungumburanye

tions for cooperation. For example, I have suspended official Belgian aid to Chile. This seems an obvious case. If Chile was a member of the Lomé Convention, it would have to be possible for the Nine to refuse. Some fairly flexible formula therefore has to be found whereby we can stick to the principle without giving the impression that we are interfering in other people's internal affairs.

Now, as to the new sectors to be brought into the Convention. These have obviously got to be discussed. It's still early days, but life itself is one long change and the scope of an international convention can well be expanded to include more sectors. You mentioned fisheries. You know what the situation is in certain countries and if these countries were interested, I think it might be a good idea to bring the matter up at the next conference.

► *You have been on trips to various ACP countries recently, to Zaire, Rwanda, Burundi, the Seychelles and Kenya. What are your impressions?*

— Let's take Zaire first. This is by far the most important country in Central Africa. It is immense. It is completely unexploited. It is the size of a whole continent and it has 23 million people. At the moment it is going through a period of fairly serious difficulties, not all of its own making. It had nothing to

do with the slump in copper prices that dealt a serious blow to its economy. To make things worse, as you know, the troubles in neighbouring Angola have paralyzed its traditional ore export routes and forced Zaire to use other, more problematical, ones. This has been a great source of difficulty. Mistakes have been made with management, too, as happens everywhere. Obviously no-one is perfect but, unfortunately, in a relatively fragile set-up like this one, the slightest mistake has far-reaching consequences and this is why Zaire has asked certain friendly industrialized countries, Belgium in particular, to help draw up a plan to get the economy moving again. This plan is currently being studied in the capital cities of all the countries concerned, in collaboration with Zaire, which will itself be submitting the plan. I see no reason why Zaire should not, over a reasonable period of time, re-establish a certain economic balance. There are already very encouraging signs of this in the transport sector where Belgium has given particular help. Recovery is clearly on the way, which is a very good thing.

Now, from the biggest to the smallest, the Seychelles, where I went because it is a newly-independent country and because I know some of the leaders and they invited me to go. The Seychelles is a tiny country but, since there are so many islands, its 64 000 inhabitants are spread over a vast

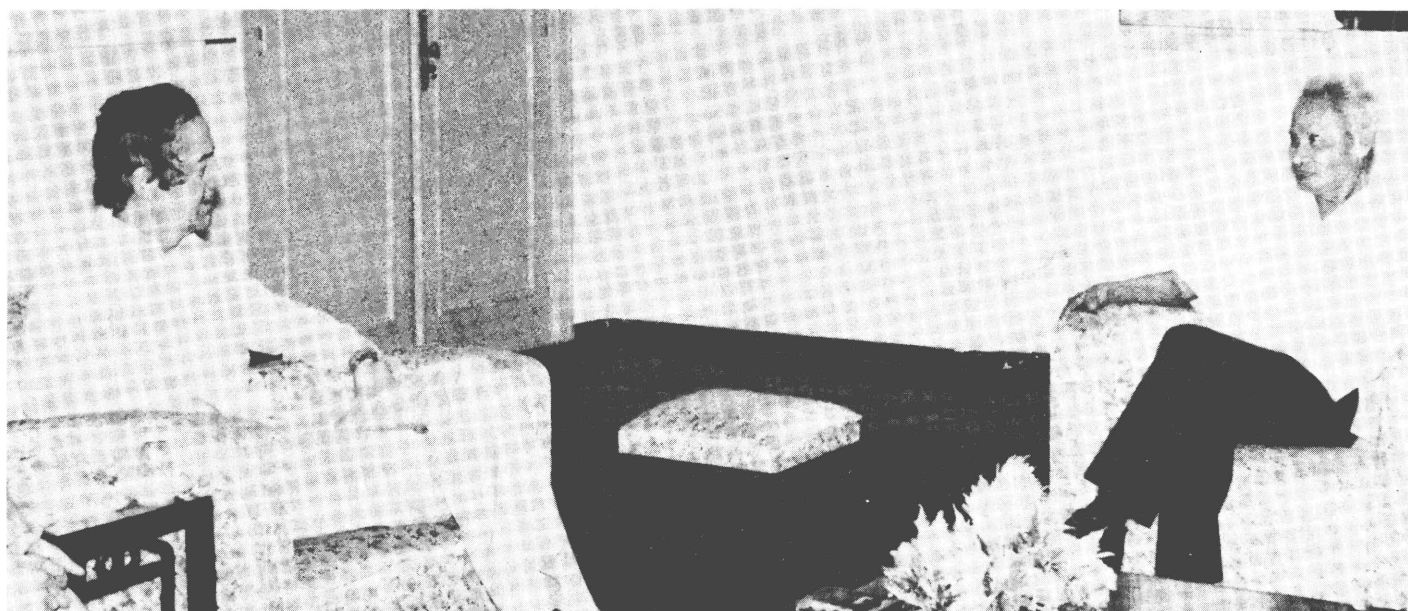
area(1). I was asked to sign a cooperation agreement concerning one or two fairly limited fields. Teaching, of course, and a certain amount of construction work, improving the road network and so on.

Now Kenya. I am involved in a fairly ambitious project in the north there, in the Marsabit region which has a desertification problem(2). Something must be done to stop the area, which is already semi-arid, from becoming a total desert. The project we are involved in is an overall scheme to provide water supplies and organize development.

My most recent trip was to Vietnam. Obviously, the project being run there is an exceedingly important one. Vietnam has been at war for 30 years and it is now faced with the problem of rapidly recovering from the accumulated ruin. The Vietnamese have asked us to sign a cooperation agreement with them because they are anxious to diversify their cooperation. So far they have cooperated almost exclusively with communist countries, particularly China and the USSR, but they are unwilling to depend on them alone. They want good relations with Europe. Agreements have already been signed with France and Sweden and there is a cooperation agreement with Belgium, a

(1) See "Courier" No 46.

(2) See Dossier.



Mr Outers with Vietnamese Premier Pham Van Dong: "some quite important cooperation agreements"

very general one, on transport, industry, agriculture, education and so on. The first application will be in the rail transport sector. We shall be starting with FB 45 million for the basic materials and equipment. The agreement is a 10-year one and we hope that cooperation will be extended to other sectors before it expires.

► Aren't you worried about spreading the aid too thin?

— Not really. I try to avoid doing so. You can run projects short and you can run countries short. Now, you have to choose your projects properly. It would be disastrous to run them short of funds. They have to be properly chosen and properly carried out and, most important, they must be right in line with the interests of the countries you are supposed to be helping. I don't think we have too many projects going at the moment. I think we can cope with them all, particularly since some of them are joint ventures with other countries, like France and Germany, or with international organizations. As to the number of countries we are aiding—my experience in the department does show that even a fairly small country like Belgium has a certain amount of resources. Our present programme is well within our means, the best proof of this being that I have just got the government to step up its aid appropriations.

► One last question, which has more to do with your own personality and tastes. I believe aesthetic sensibility

is of great importance to you. How important, then, are art, cultural values and cultural cooperation between Europe and the developing countries? And isn't this something we could add to the Lomé Convention?

— I am sure it is. I have always said that the great danger to mankind is uniformity. Man's greatest wealth is his diversity and it must at all costs be preserved. The media, particularly the visual services, have developed to an extraordinary extent. Similar things are shown on similar screens in places as far apart as Dakar, Hanoi and South America, and this could lead to a kind of barren uniformity where everyone loses his individual cultural identity and talks a sterile, universal language. This is why I think we must try our hardest to preserve our individual features, otherwise, to my mind, life will not be worth living. What ultimately is this wealth that is so important that we must preserve it at all costs? Obviously we must begin by feeding people and ensuring their livelihood. But what distinguishes man from the rest of creation is that he thinks and he has a culture and it is the value of this thought which is our ultimate objective.

**Diversity is man's
greatest wealth**

We must therefore do our utmost to ensure that thought is as rich and diversified as possible. That is what

culture is. It is a way of looking at life, a kind of tradition that has come down through the mists of time and makes Indians different from Chinese and Chinese different from Europeans. This must be borne in mind in cooperation and I think the Treaty of Rome was wrong not to mention it. In my view, the Treaty of Rome, particularly in the way it has been applied, is too much of a traders' treaty. We have a European market rather than a European cultural identity and I think it is high time we took a serious look at this side of things. Cooperation is one field where there is a particular need to highlight culture. We should not be going to the Third World to impose our own ideas. We should simply be helping them to keep theirs and to develop them under good conditions. Take school books, for example. We have got to stop teaching young Africans about "our ancestors the Gauls" and the like. Why do maths problems in Burundi have to be about trains running from Charleroi to Ostend? There aren't any trains in Burundi and the pupils don't understand. What is more they have no idea where Charleroi or Ostend is either. So teaching must be more suited to their culture, their way of thinking and, above all, to their everyday lives. This is only one example. There are many others. The problem is vast and it would take a great deal of time to go into it properly. But there is no doubt that cultural cooperation is vital and that it must be approached in the knowledge that diversity is man's greatest wealth. □

Interview by A.L.

A two-way investment

After over two years of laborious talks, the Euro-Arab dialogue has come up with the first list of projects to be financed in Arab countries jointly by the two sides.

The nine projects approved by the Euro-Arab General Committee at its third session, held in Brussels in October, are:

- a symposium on the European and Arab civilizations, to be held in Hamburg (West Germany): estimated cost \$250 000;

- a study of the Arab countries' training requirements in the sea transport sector (\$240 000);

- harmonization of statistics in Arab ports (\$60 000);

- a study for the development of the new port of Basra in Iraq (\$500 000);

- a study for the development of the new port of Tartous in Syria (\$500 000);

- a symposium on new towns (\$20 000);

- a study for the Bardera (Juba valley) irrigation scheme in Somalia (\$1 200 000);

- a study for a meat project in the Sudan (\$50 000);

- a study for a seed potato project in Iraq (\$1 800 000).

Agreement has also been reached on:

- the funds initially available (\$15 million from the Arab side, \$3.5 million from the European side);

- and the financial procedures for spending the money.

Work is going ahead on a number of other subjects, including a Euro-Arab convention on the protection of investment against non-commercial risk, a Euro-Arab centre for the transfer of technology (the Arabs want this to be in an Arab country) and several schemes for cultural cooperation. The General Committee encouraged the specialized groups working on industrialization to push on as fast as possi-

ble in their discussions on refineries and the petrochemical industry, and now on fertilizers and steel; and it urged the agriculture group to make an early examination of an important irrigation programme put forward by the Arab Centre for the Study of Arid zones and Dry lands (ACSAD).

The main areas of disagreement on the economic side are:

Trade preferences. The Arab group has called for duty-free access to the EEC for all their industrial products; 11 Mediterranean and African Arab countries already have preferential access under the Lomé, Maghreb and Mashreq agreements; Libya and the states of the Gulf and the Arab Peninsula (a further 10), which together have a massive trade surplus with the EEC, do not. The European side has suggested institutionalized but non-preferential trade

links with the Arab world as a whole, and discussions are continuing on the possibility of a Euro-Arab centre for trade cooperation. The Arab side has objected to EEC import restrictions which affect three countries (Morocco, Tunisia and Egypt).

Arab investments in Europe. While the EEC agrees on the value of protection against non-commercial risk (e.g. nationalization) it does not accept the Arab demand for protection against "monetary risks", i.e. inflation and other monetary fluctuations.

Free transfer of technology. European ownership rights rule this out.

Refined petroleum products. The Arab countries are embarking on ambitious programmes of construction for new refineries and petrochemical plants. But European petrochemical industries, which at present have considerable surplus capacity, feel threatened by a trickle of competition which could become a flood.



Taher Radwan (Saudi Arabia), co president of the Arab delegation, with Belgian foreign minister Henri Simonet (right), president of the EEC Council of Ministers, during the Euro Arab General Committee meeting in Brussels.

The dialogue so far

A handful of projects and the commitment of a quarter of the modest amount of money made available seems a meagre result for a dialogue first suggested four years ago. But Euro-Arab cooperation is a peculiar and complex undertaking. The group of developing countries in this case includes some of the richest and some of the poorest in the world. The two sides have had many centuries of contact (often as adversaries—Arab rule in part of Europe lasted much longer than European rule in most of the Arabian world—even the words 'tariff' and 'douane' are of Arabic origin); and a crisis-hit Common Market was in no position to offer countries that were among its richest and most important trade partners a standard development aid package. Much of the earlier stages of the dialogue were devoted to talking about what there was to talk about.

But the basic issues are clear enough. In 1973 the Arabs stood up and made themselves heard in the West. The oil price rises were a way of banging on the table. In the ensuing silence they asked for their point of view in the Middle East conflict to be considered. They pointed out that a civilization that had given Europe such inventions as the university, the hospital and the observatory was not to be ignored while its European neighbours formed a union amongst themselves and made a pact with Africa, the Caribbean and the Pacific. Moreover, the European Community was reminded that 71% of its crude oil came from Arab countries, and that it was pulling very little weight on the international diplomatic scene.

In November 1973 the EEC made a joint declaration on the Middle East and shortly afterwards an Arab summit in Algiers suggested a Euro-Arab dialogue, sending four ministers to the jittery EEC summit in Copenhagen the following month. For the next six months the EEC pondered how far it could deal with the Arab oil states independently of the USA; and in November 1974 the Arab ambassadors put forward a first draft of what the dialogue might contain. Progress was held up by the question of whether or not the PLO should participate in the dialogue, until a compromise was reached whereby the two sides would meet simply as single Arab and Eur-

opean delegations, while the bulk of the economic work would be done by groups of experts. The experts first met in Cairo in 1975 and hammered out the basis of discussion across a fundamental difference of approach, the Europeans emphasising the economic and the Arabs the political aspects of the dialogue. Their joint memorandum called for measures "to close the technological gap between the European and the Arab countries" and linked cooperation to "stability, security and a just peace in the Arab region and to promoting peace and stability in the world".

In Rome that summer the main areas for discussion (besides politics) were defined as: industrialization; agriculture and rural development; financial cooperation; trade; scientific and technical cooperation; infrastructure; and

cultural, social and labour questions. The cooperation that seemed possible in these fields was defined at a further meeting in Abu Dhabi in November 1975.

The General Committee (ambassador level) then met in Luxembourg (May 1976) and Tunis (February 1977). In Luxembourg, the General Committee established the main institutions of the dialogue, with itself in overall authority and specialized groups being formed to help the working committees as necessary. The agenda also included 'political questions', on which the two sides made statements and left some of their differences to be aired more fully at the Tunis meeting. At the last meeting in October, the Arab side "welcomed the stand which the European Council had adopted on the Middle East by issuing in London their statement of 29 June 1977". The importance of this statement was that it went beyond the EEC's reiterated support for UN Security Council resolutions calling for Israel's withdrawal from the territories occupied since 1967 and vaguely recognising "the legitimate rights of the Palestinians", in that it specifically mentioned the need for "a homeland for the Palestinian people". The Arabs remained disappointed that the EEC did not specify what sort of a homeland and where, and they again pressed for EEC recognition of the PLO. But at least by then it should have become clear that the Community does accept political discussion in the Euro-Arab dialogue, which began, after all, as an expression of political will. What the Community has not accepted is that the dialogue should be used for political negotiation.

What next?

The Euro-Arab dialogue is not a conference limited in time like the North-South dialogue. In theory, it could continue indefinitely. The institutional and financial procedures are now, at last, established and the first projects have been agreed. Among the strong reasons for economic cooperation is the simple fact that the two regions are each other's main trade partners. The Arabs sell some 40% of their exports (mainly oil, especially from Saudi Arabia and the Gulf) to the EEC (which thus buys from them more than the USA, Japan and East Europe combined); and they buy about 43% of

Arab countries without trade agreements with the EEC

Libya
Iraq
Saudi Arabia
Kuwait
United Arab Emirates
Bahrain
Qatar
North Yemen
South Yemen
Oman

Arab countries with trade agreements

Morocco(1)
Algeria(1)
Tunisia(1)
Egypt(2)
Syria(2)
Jordan(2)
Lebanon(3)
Sudan(4)
Somalia(4)
Mauritania(4)
Djibouti(5)

(1) Maghreb agreements, signed April 1976.
(2) Mashreq agreements, signed January 1977.
(3) Mashreq agreement, signed May 1977.
(4) Lomé Convention.
(5) Djibouti, a newcomer to the Arab League, has applied to join the Lomé Convention.



GUYAUX

Mahmoud Riad (Egypt), Secretary General of the Arab League, with Mr Radwan.
Below: Messrs. Riad, Radwan, Simonet and Cheysson
(EEC development commissioner).



GUYAUX

their imports (particularly machinery and transport equipment) from the EEC. For the Community, the Arab countries have overtaken the USA as its most important export market (13.4% of EEC exports in 1976); and it buys 20% of its imports from the Arab world.

The main economic difficulties are in the basic areas of trade, technology and finance.

Trade. Whatever their degree of political unity, the Arab countries are certainly very different economically. The Community is understandably reluctant to give them all duty-free entry for their exports when last year it had a trade

deficit of \$10000 million with the countries with which it has no agreements (but a surplus of \$3400 million with the rest). The average per capita income of the 10 Arab League countries without preferential trade agreements with the EEC was about \$1750 in 1974, four times the average level of the countries with agreements. Since oil represents 98% of their exports to the EEC and enters duty-free, it might seem a quibble to tax the rest of their exports, especially since most of them benefit from GSP or GATT advantages; but the problem is not so much what a blanket trade agreement would mean now as what it would mean in the near future, when the Arab oil producers will be well on the way to industrialization, particularly in petrochemicals.

Technology. The technology the Arab countries particularly want cannot be transferred free simply by an edict of the EEC; as with the question of better working conditions for Arabs in Europe, this is a matter where legislation cannot yet be drawn up at Community level, and the appropriate technology is more likely than not in the hands of private operators. The proposed Euro-Arab centre for the transfer of technology would deal mainly with information and training, the latter in particular being an area in which the Community can help. Of course, this whole subject has been discussed for years in a wider context than the Euro-Arab dialogue.

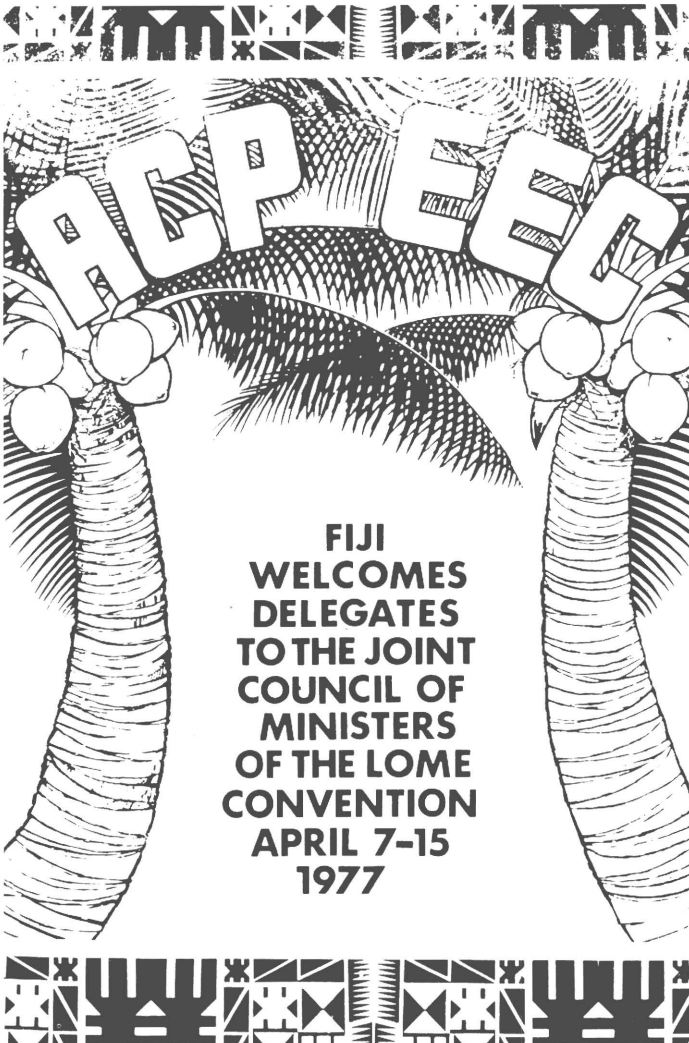
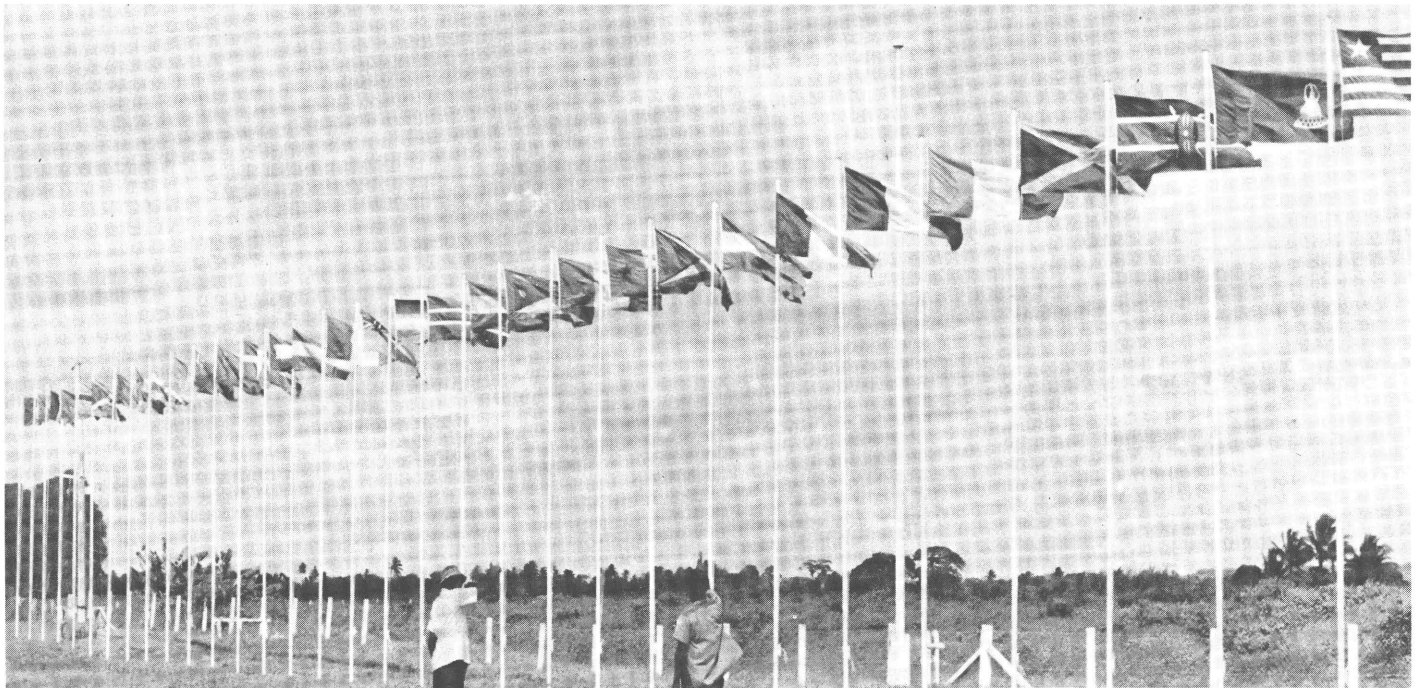
Finance. The EEC cannot protect Arab investments in Europe against monetary risks any more than it can give such a guarantee to its own nationals; but the proposed Euro-Arab convention on the protection of different forms of investment against other non-commercial risks could, despite its legal complications, turn out to be of world-wide interest.

Paying for cooperation. The Arab world as a whole has money to spare, but they would like the Europeans to put up a third of the cost of all joint projects.

Investing for the post-oil future

The Euro-Arab dialogue has taken this long to emerge onto more solid ground from purely political, and even psychological, considerations. It is paradoxical, for instance, that although the oil crisis was the starting-point of the talks, oil has scarcely been discussed (apart from the specialized group that has now started examining refining and petrochemicals); and that although the Arab countries insist on a trade agreement applicable to them *en bloc*, inter-Arab trade is minimal (4.3% of Arab exports in 1975). The ground for cooperation is nonetheless very solid. Europe will need Arab oil and investment, and the Arabs will need European markets and technology, at the very least until the end of the century. For as President Nasser once remarked, "you can't drink oil". The Arab world is investing now in its post-oil future. □

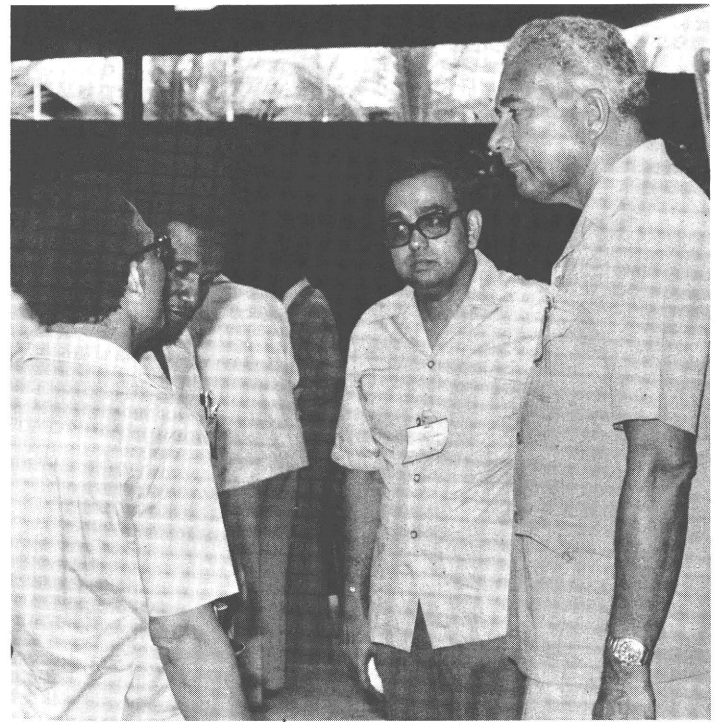
BARNEY TRENCH



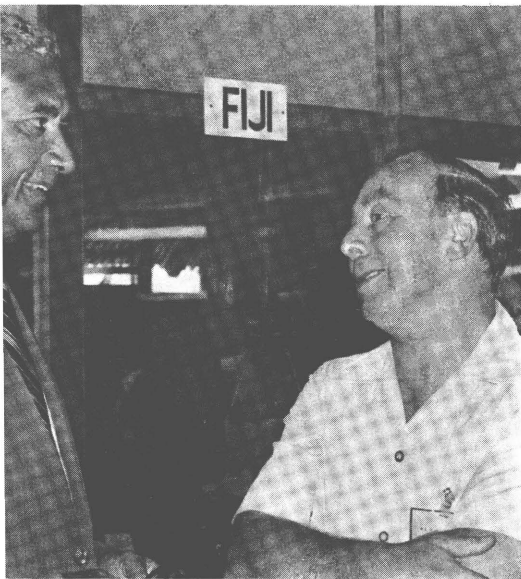
Pictorial record of the ACP-EEC Council of Ministers in Fiji

In April 1977, the ACP-EEC Council of Ministers met in Suva, the capital of the Pacific island of Fiji. This, the second meeting of the most important of the Lomé Convention institutions, was the first to actually take place in an ACP country. Suva was an important event, both because of the topics discussed (see "Courier" No 43) and because it symbolized the full geographical extent of the Lomé Convention. When Lomé was signed, much was made of its future as a bond, both between the ACP countries themselves and between the ACP and EEC groups. Suva was the first major opportunity to confirm this aspect of the links and the growing understanding between the ACP and European partners. Without the Convention, many participants at the Fiji meeting would have been unlikely to get to this corner of the world, although the peoples and cultures of the Pacific have much in common with those of the ACP countries of Africa and the Caribbean.

To give an idea of what this Council of Ministers was like, we present a pictorial record of the meeting. The photographs were supplied by the Fiji Embassy in Brussels.



ACP representatives at Suva: Top to bottom (reading left to right): Dr Akinyele (Nigeria), Bernard Adundo (Kenya), Raymond Chasle (Mauritius), Gab Ijewere (Nigerian ambassador), Harry Dyatt (former ambassador of Guyana), J. O'Neil Lewis (Trinidad and Tobago), Edwin Carrington (deputy ACP Secretary-General), Satya Nandan (Fijian ambassador) and Ratu Sir Kamisese Mara, Prime Minister of Fiji. Left, Suva seen from the airport.



Top row: Ratu Sir Kamisese Mara with Maurice Foley, deputy director-general of development at the EEC Commission; the Fijian Premier with ambassador Lewis; Edwin Carrington. Left: the ACP presidency; the EEC team. Below: the ACP front bench; ambassadors Messan (Niger), Traoré (Mali) and Mangwazu (Malawi), and Mrs Mathe (Botswana). Souvenir hunting.



Papua New Guinea

Priority to agriculture and social development

Papua New Guinea, a chain of Pacific islands east of Indonesia and north of Australia, became independent on 16 September 1975. The rugged, mountainous mainland is 462840 km² with a highest point of more than 4700 m. Its many valleys, its volcanic landscape, its waterways (some of the most spectacular in the world) and its tropical climate are considerable advantages as far as agricultural development and hydro-electric power production are concerned.

Population. It had an estimated population upwards of 2600000, including 39000 foreigners, in 1972. More than half are under 20. Most people (90%) work on the land, although the towns are an increasing attraction. Urban development is irregular. Population density varies from 0.6 per km² in the west to more than 38 on the Gazelle peninsula and in West New Britain.

Government. The political system is a copy of the British one. The govern-

ment is led by the Prime Minister, the head of the party which wins the general election (universal suffrage).

The present PM, who has been in office since independence, is Michael Somare, at 41 one of the youngest heads of government in the world. However, in view of the country's very young population, this is no exception. Peter Donigi, head of the Port Moresby mission to Brussels, is only 26.

Alongside the British-type parliamentary system, there are a number of local representative bodies to answer administrative problems on the spot. Local authorities have powers to provide essential services (such as infrastructure, health facilities and education) and to levy certain local taxes. The idea is to decentralize administration for greater efficiency.

The economy. This is based on agriculture, forestry and fishing. However, a government brochure published last January outlines the importance of the mineral and oil resources, mainly copper (360 million t in West Sepik Province and 240 million t in Yandera), which now seem bound to be exploited.

More resources are provided by the forests, mainly in Vanimo (287000 ha), Kapiura (85000 ha), Kapuluk (181000 ha), Kumusi (70000 ha), Sararai-Gadaisu (160000 ha), Umboi (95000 ha) and Manus Island (47000 ha). In the Third National Investment Priorities Schedule, the government also made provision for resources above and below the ground to be properly utilized by having them processed locally.

Fisheries are also of importance. The territorial waters are well-stocked and the 1976 catch of more than 20000 t brought in almost K 7 million (1).

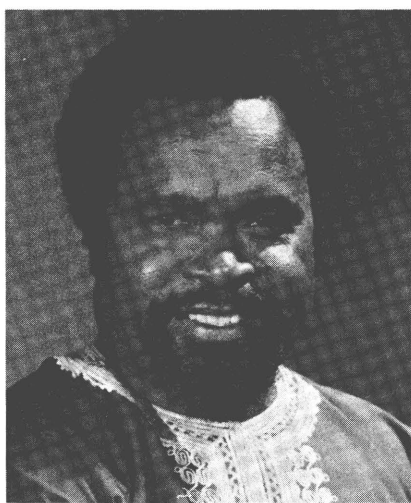
Agriculture, employing more than 90% of the population, is the mainstay of the economy. The main crops are soya, maize, sorghum and rice, most of which is produced in Markham Valley (23000 ha), Kempwelch (2500 ha) and Bereina (5000 ha). Other products include palm oil (20000 ha of palms in Biala and Soinavo) and sugar cane (30000 ha). A 30000 t capacity sugar refinery is shortly to be built to meet increasing demands. At the moment 23000 t p.a. are imported.

The Lomé Convention. Papua New Guinea joined the Lomé Convention on 28 March 1977.

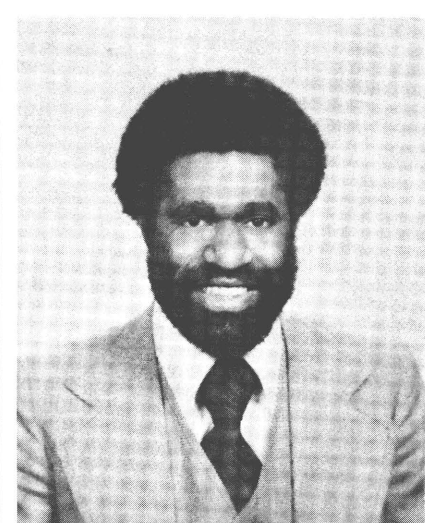
An EEC programming mission went out to Port Moresby in October-November 1977. A programme of EDF financing of 10000 EUA for the remaining life of the Convention (about 2 1/2 years) has been signed. EDF aid will be spread over agriculture (55%), infrastructure (15%), social development (20%) and feasibility studies (10%).

Currency. In April, shortly before independence, Papua New Guinea introduced its own currency, the Kina (K) which is divided into 100 toca. One Kina is worth about US \$1.24. The currency is convertible.

This country is an attractive one for both investor and sightseer. Papua

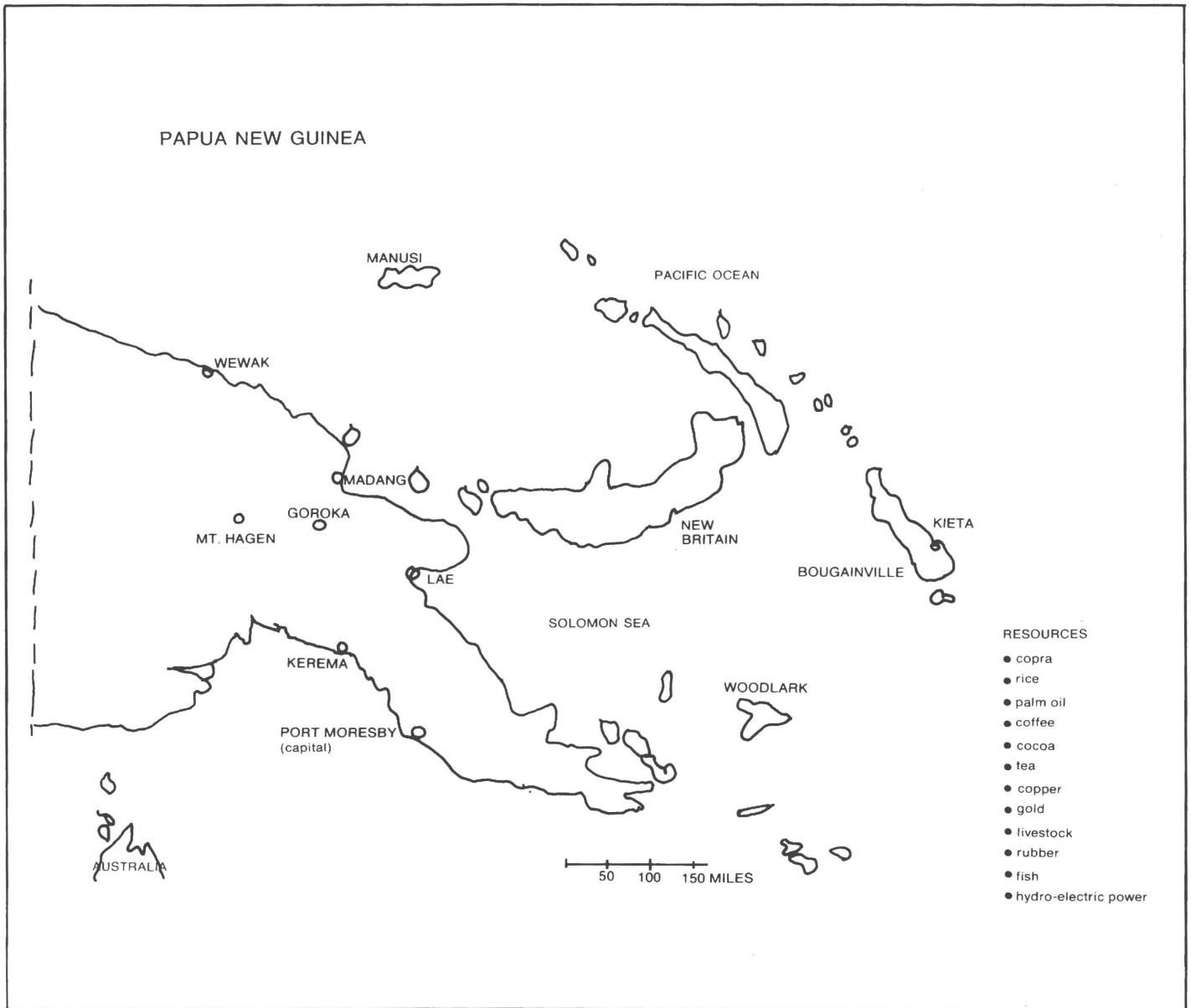


Prime Minister Michael Somare (41) has played a leading role in taking his country to independence.



Peter Donigi, head of the Papua New Guinea mission in Brussels.

(1) The unit of currency is the Kina (K).

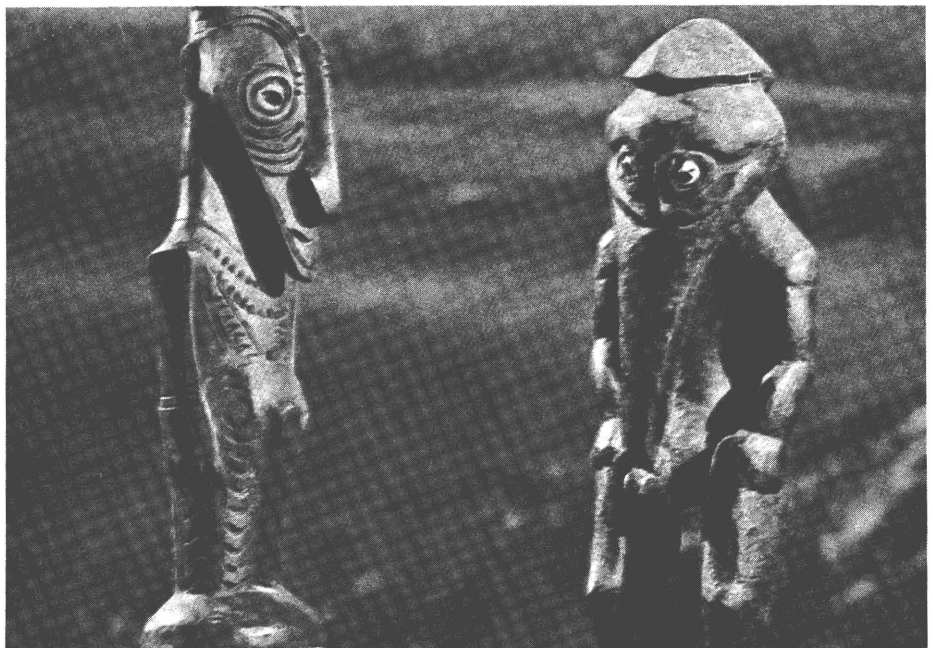


New Guinea is rich in flora and fauna and its cultural variety reflects the diversity of its regions.

The working language is English but most people speak Motu (a Melanesian Pidgin) and Pidgin English. Pidgin is to Papua New Guinea and West Africa (Cameroon, Benin, Ghana, Nigeria and Togo) what Creole is to the Caribbean countries. Apart from broadcasting (there are a number of regional stations), newspapers are the main source of information. There is one English paper, The "Papua New Guinea Post Courier", and a number of Pidgin magazines, like "Wantok" and "Our News".

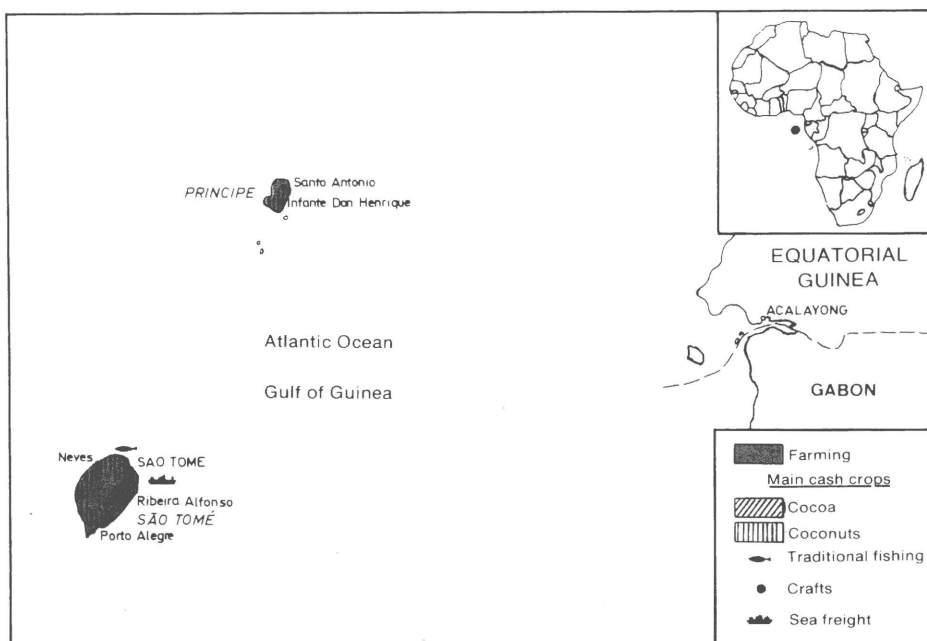
Papua New Guinea successfully combines modernity and essential national traditions—another trump card in the hand of this new member of the Lomé Convention. □ L.P.

The islands have a rich and curious cultural past.



SAO TOME AND PRINCIPE

A difficult economy to change



The Republic of Sao Tome & Principe consists of one large and one small island, of about 840 km² and 120 km² respectively. Sao Tome & Principe is a unitary republic, along the lines of Trinidad & Tobago, and lies off the west coast of Africa, level with Cameroon and Gabon. It gained independence in July 1975 and is one of only three Portuguese-speaking ACP countries in the Lomé Convention.

About 6000 of the 80000 or so Sao Tomenses (average population density 80 per km²) live on Principe and the rest on Sao Tome, 20000 of them in the capital, also called Sao Tome, which is the republic's main port and airport.

The economy

The islands are of volcanic origin and few resources have been discovered either above or below ground. The main products are, in order of importance, cocoa (20000 ha), coconut, copra and coffee. Food crops (maize, manioc, bananas, palm oil and fruit) only account for 6% of the land and export products for 30%. More than 60% of the country is forest or arable land.

The colonial system inherited from the Portuguese obliged Sao Tome to import most of its food in order to concentrate on producing basic tropical products for export. According to the FAO, the average inhabitant only had 75% of the calories he needed and less than 50% of the protein in 1974 and 1975.

Food imports account for an average 30% of total imports and, in 1975, represented 63% of overall export revenue.

There was a drastic drop in exports in 1975 and 1976 as compared to 1974, the year before independence. The sharp decline in cocoa production in 1975, accompanied by a slump in pri-



Coconuts and copra are the country's main products

ces, largely contributed to the trade deficit and the imbalance of payments. Things looked up slightly in 1976, when a thousand or more tonnes of cocoa than in 1975 were exported at a unit price one and a half times that of the previous year.

In spite of fairly well-stocked territorial waters, fishing still tends to be on a small scale and geared to local consumption.

Pig and poultry-raising predominates, but there is a government drive to develop cattle-rearing.

The secondary, tertiary and energy sectors are also in great need of development.

EEC programming mission

A programming mission led by Michel Hauswirth, EEC deputy directors-general, went out to Sao Tome in September 1977 to help the government develop an independent economy that was not based on the single crop system left over from the colonial era. The mission talked with the authorities and together they drew up a programme of aid in line with the country's economic and social priorities. The programme is both a continuation of and a complement to bilateral aid from Cuba, China, France, the Netherlands, the US, the UN, etc. Achim Kratz, Commission delegate to Libreville and Sao Tome, says the programme will enable the government to develop the following sectors in particular:



Prime Minister Miguel Trovoada (right), who is also in charge of the economy, cooperation and tourism, signs an EDF financing protocol during the EEC programming mission to Sao Tome with Michel Hauswirth, deputy director-general of development at the EEC Commission

Food imports

| Food products | 1971 | 1972 | 1973 | 1974 | 1975 |
|--------------------------------|-------|-------|-------|-------|-------|
| in 1000 EUA | 2 400 | 2 300 | 2 700 | 2 400 | 3 770 |
| as % of value of total imports | 33 % | 32 % | 33 % | 29 % | 39 % |
| as % of export earnings | 39 % | 35 % | 25 % | 17 % | 63 % |

This serious food shortfall is a heavy burden on the balance of payments, although the situation has been relieved somewhat, since 1975, by food aid.

Exports of tropical products

| Products exported | 1974 | 1975 | 1976 |
|-----------------------|--------|--------|--------|
| Cocoa | | | |
| — in tonnes | 9 543 | 5 188 | 6 278 |
| — in 1000 EUA | 11 620 | 5 455 | 7 765 |
| as % of total exports | 80.0 % | 90.8 % | 90.2 % |
| Copra | | | |
| — in tonnes | 4 938 | 1 826 | 3 398 |
| — in 1000 EUA | 2 148 | 401 | 518 |
| as % of total exports | 14.7 % | 6.7 % | 6.0 % |
| Coconut | | | |
| — in tonnes | 2 001 | 518 | 1 280 |
| — in 1000 EUA | 611 | 75 | 182 |
| as % of total exports | 4.18 % | 1.25 % | 2.11 % |
| Coffee | | | |
| — in tonnes | 93 | 28 | 70 |
| — in 1000 EUA | 184 | 54 | 140 |
| as % of total exports | 1.26 % | 0.90 % | 1.63 % |
| All products | | | |
| <i>Total exports</i> | | | |
| — in tonnes | 16 643 | 7 579 | 11 026 |
| — in 1000 EUA | 14 603 | 6 004 | 8 605 |
| as % of total exports | 100 % | 100 % | 100 % |

Agriculture and stock-rearing. The aim here is to produce an integrated agriculture/stock-raising development scheme linked to a drive to improve cocoa and palm oil plantations and to the use of by-products for the stock-raising scheme.

Road infrastructure. This involves supplying equipment for a public works brigade which will lay roads on Principe.

Port infrastructure. A feasibility study will be financed with a view to building a commercial fishing port on Principe.

Strengthening the public health infrastructure. Two schemes are planned:

(1) The modernization of Principe's public health infrastructure by building and fitting out a 40-bed rural hospital at Porte Real.

(2) Repairs to and a new set of equipment for the general department of Sao Tome's central hospital.

Microprojects. The Community will be helping with a primary school classroom and canteen construction programme and with establishing crèches in country areas.

Technical assistance—training and study. Training grants will be provided, seminars will be run locally and it will be possible to follow any further courses of study that prove necessary for the implementation of the investment programme. □

Can ECOWAS survive ?

by Roosevelt ANDERSON(*)

The need for economic cooperation is doubtless appreciated by all countries in Africa but in West Africa this need is much stronger. Records of the first United Nations Development Decade point out that 16 of the 25 states classified as least developed of the developing world are African. The acute problem of poverty in Africa more than emphasised the economic truism that the African populations within national boundaries are too small and the levels of income too low to sustain modern viable economies.

The present conditions in the West African region call for the use of sophisticated tools and policies to promote rapid growth and development. The adoption or the use of modern technologies in an effort to achieve sizable markets in which goods do not have to pass through high tariff barriers, which is the case now, will have to be reviewed carefully to benefit all countries in the region.

Since the early '60s, when many African states achieved political independence, several attempts have been made at one time or another to forge an economic grouping in the West African region. There was the Lagos conference on industrial coordination in West Africa in November 1963; the Niamey conference on economic cooperation in October 1966; and the Accra conference of April 1967 where Articles of Association for the establishment of an Economic Community of West African States(1) were signed. Under this framework, an Interim Council of Ministers was established which was assigned the principle task of preparing the draft treaty for the proposed Community.

The first meeting of the Interim Council of Ministers was held in Dakar, Senegal in November 1967. There, it was agreed that to ensure success, the inaugural meeting should take place at the level of Heads of State. In April 1968, West African Heads of State met

in the Liberian capital, Monrovia, where the protocol establishing the West African Regional Economic Grouping was signed. The Monrovia meeting mandated Guinea and Nigeria to prepare priority studies of areas of cooperation, while Liberia and Senegal were asked to prepare a draft Treaty and Protocol on a customs union.

Since 1968, the draft Treaty and the Protocol on customs union were submitted to the member governments for study and review pending its consideration by the Interim Council of Ministers, which did not meet. The result is that between 1968 and 1972 no action was taken on this matter.

In April 1972, the Heads of State of Togo and Nigeria decided to revive the processes for achieving economic cooperation in West Africa. At the ministerial conference held in Lomé, Togo between 10 and 15 December 1973, it was agreed that the new economic community should cut across linguistic and cultural barriers, that a pragmatic approach should be adopted, and that the doors should be left open for other sub-regional states to join as and when they were ready. This reinvigorated approach at the Lomé meeting identified the following areas with the view of reasonably achieving success. These areas were: trade liberalisation, customs and immigration, industrial harmonisation, agriculture, monetary and financial matters and infrastructural links.

The question of finding practical policies to implement these proposals depends obviously upon the political will of the respective governments and the spirit of "give and take" which sometimes poses a stumbling block to achieving regional and sub-regional economic objectives.

Today, it can be clearly pointed out that the major obstacles have been surmounted. The draft treaty establishing ECOWAS, the Economic Community of West African States has been signed and ratified by all the 15 governments in West Africa. The institutional apparatus has been set up with

Lagos becoming the seat of the Secretariat while Lomé became the seat of the fund. Diaby Boubacar Ouattara of the Ivory Coast was appointed Secretary-General of ECOWAS and A. Romeo Horton of Liberia was appointed director of the fund. Several protocols were signed and are now in the implementing stage.

In this regard, the issue of national sovereignty is put in an even sharper focus in the case of an economic union that involves, in addition to trade integration, the effective coordination and harmonisation of economic policy making. Subsequently, the coordination of economic policies, in turn, require hard political decisions. In such a case, one may cite Imre Vajda, according to whom: "economic union is not a stage on the path leading towards political union, but a possible and desirable consequence of the latter". In Vajda's view, the lack of speedy progress, for example, towards economic union in the European Economic Community in itself is not sufficient to moderate the concern of the national states with regard to their sovereignty. Recent efforts to achieve monetary integration without the effective coordination of economic policy have proved to be a difficulty experienced by the EEC. In this regard, many West African governments are cognizant of the difficult problems experienced by the more advanced European Economic Community.

Production and development policies regarding integration in ECOWAS, and the safeguarding of the interest of the states at lower levels of development, require joint decisions. The existence of a trade-off between the uncertain benefits of integration and the partial loss of national sovereignty leads one to conclude that the chances of an integration scheme increase with the size and degree of homogeneity of the countries involved.

Can one then predict whether or not leaders of the states comprising ECOWAS can use their political will in crystallising and implementing their desired objectives without endangering their respective national interests?

From experience, the attempt at economic integration by countries in Africa and particularly those in West Africa

(*) First Secretary for Economic Affairs, Embassy of Liberia, Brussels.

(1) ECOWAS or CEDEAO in French.

have generally suffered serious setbacks. While many governments in the West African region are aware that the process of economic integration would not be easy, they all seem to agree that the benefits of integration have much to be desired.

In the Treaty of ECOWAS, the states agreed to pursue a policy of trade liberalisation with the view of improving overall regional trade and the elimination of trade barriers. Trends in the growth of prices and costs in neighbouring countries can be received and monitored through more reliable information channels thereby lessening the uncertainty as regards the effects of trade liberalisation on domestic industry.

The subsequent costs of infant industry protection will be lower in a regional union than in a national framework. The ECOWAS states are also aware that the cost of regional integration would result in higher import prices from their neighbours and the establishment of monopoly positions in particular industries, for example the highly developed capital-intensive industries of iron ore extraction in Liberia and bauxite in Ghana.

Thus, the balance of benefits and costs of regional integration in the case of ECOWAS will depend largely on the circumstances of the situation, including market size, resource endowment, geographical location and access to outside markets, as well as on the policies applied.

The commitment of one hundred million dollars (\$100,000,000) to the ECOWAS Solidarity, Development and Compensation Fund and the establishment of a West African Clearing House based in Freetown, Sierra Leone, are intended to ease the difficulties which are expected to be experienced by the least developed states of ECOWAS.

As a result of this integrated market approach, the current tempo of industrialisation in West Africa can be increased to provide acceptable target rates of growth to absorb the rampant problem of unemployment and above all to introduce dynamic socio-economic change within the West African region. This would require the maximum utilisation of land, labour and capital to arrive at economies of scale where consumer and intermediary goods can be produced through specialisation and product variety.

Integrated projects, whether industrial, agricultural, commercial or agro-industrial must be preceded by a transportation and communication network and well-coordinated port facilities. High growth and development can be achieved through large-scale operations, greater specialisation in production, joint management and the coordinated use of jointly-owned resources.

To sum up the determination of leaders of West African states regarding their commitment to the survival of ECOWAS, I refer to a statement made by President Tolbert of Liberia — "If the scheme is based on pragmatism and realism it is bound to herald the beginning of a new era in this part of our continent and our world, not only for ourselves but for generations still unborn. Success of any future regional

grouping will be dependent on the measures taken to mitigate the hardships imposed upon the weaker countries since the nations in the West African subregion are in different levels of economic development."

Finally, rather than attempt to make a prediction as to the likelihood of the survival of ECOWAS, I would like to emphasize that the conflict between national sovereignty and economic self-interest can be resolved only if there is a political interest and political will to do so. Economic interest thus appears as part of a political process whose final outcome is determined by essentially political factors(1). □

(1) The views expressed in this article do not necessarily reflect the policy position of the Liberian government nor its mission in Brussels.

What the rich countries must learn from the poor

Arguing things out with others is the best way to find out exactly where one stands oneself.

The two recent heart-to-heart discussions at Scy-Chazelles (France), attended by ACP ambassadors and MPs, senior European officials and one or two others of good faith, provide those Europeans who are willing to look and listen with one costly and final opportunity of seeing just where our civilization stands.

It is a costly opportunity because it has been given to us by the courage of those whose hearts were and still are wounded by the depersonalizing domination imposed by our certainty of being the only ones to hold the whole truth, be it spiritual or material; the existence of other people as individuals, cultures and civilizations has seemed to us merely secondary, a subject for study or specialized reports.

It is a final opportunity because, sure as we are of being the one true civilization, we have disregarded the lessons of history and we have disregarded the obvious fragility of Peace and the formidable strength of War. We in the West are scarcely aware that our world could collapse in one, ultimate disaster. But Man will not disappear from the face of the Earth,

since what we call the Third World is, despite all its suffering, much more solid than our own world.

The Third World is still rooted in Life itself and is not, as a community, cut off from the primordial source. We live an increasingly rarified life in the name of comfort, and we are placing increasing restrictions on our understanding in the name of reason. The result is that the Third World has much to teach, rather than to learn from, the First and Second Worlds about the profound meaning of the adventure of life—which is so much more than the amassing of gadgets or the deification of the State.

What these two heart-to-heart discussions, which the ACP ambassadors generously intend to continue, revealed—and this is not too strong a word—to us Europeans and to the West in general, is that the future of the world is not our exclusive responsibility and that we have an immense need to be silent and listen to others. Such new-found humility and attentive presence are probably our one chance of salvation and our only hope for peace. □

Bernard Zamaron,
Delegate at the
Robert Schuman Centre

The activities of the Centre for Industrial Development

by W. ULBRICH(*)

Between January and November 1977, the CID has dealt with about 600 project requests or ideas, of which about half each came from the ACP countries and the EEC. An increasing number of requests is initiated by information on industrial cooperation possibilities, disseminated by the CID. Requests are pre-screened by the staff of the CID and require, in many cases, simply the provision of specific information, or introduction to the right address. A more time-consuming, and normally delicate task, is the negative selection of unrealistic projects. It is impossible to meas-

ure these "invisible" routine services provided by the CID.

Interventions by the CID cover the complete spectrum of industrial cooperation activities, reaching from ad-hoc assistance at any stage of a project—e.g. identification of raw-materials or market outlets, search for investment partners and appropriate technologies, preparation of feasibility studies and financing plans, assistance with management arrangements and training—to systematic support throughout all phases of project preparation and implementation.

Active promotion by the CID

The CID has completed its interventions on about 20 projects (most of which are going ahead) and is presently actively engaged in the promotion of more than 100 project activities in nearly all ACP states. Of these, about one quarter each fall into the two categories "Extraction Industries and Minerals Processing", and "Food and Beverages Industries", thus showing the importance attached by the CID to the processing of the ACP's raw materials.

It has to be pointed out that there is no need for the CID to get involved in "easy" projects: the CID's role is to help identify and define new project possibilities, and to turn "marginal" projects into technically and commercially viable ventures, whereby priority is given to those projects with maximum socio-economic benefits. The CID expects that, as a result of its initiative

and assistance, about 10 important joint-venture agreements between economic operators in the ACP and the EEC will be signed, within the first six months of 1978. In addition, the CID will provide assistance of all kinds to on-going projects, thus accelerating their implementation or improving their viability.

Examples of CID-supported projects

Many projects are submitted to the CID, by their private sponsors or governments, on the basis of strict confidentiality. Therefore, the CID can only publish information on projects with the approval of project sponsors. The following examples of the CID's project activities can nevertheless be regarded as being representative of the CID's work, both as far as sectors and types of intervention are concerned:

Adding value to raw materials

— Tanning of hides and skins:

The CID has initiated a survey on possibilities to process selected agricultural and mineral raw materials in the ACP countries. One of the preliminary results of this survey which was undertaken with the assistance of Commission delegates in the ACP states, is the identification of at least six new tannery projects. For all these projects, the CID has found EEC joint-venture partners; in two cases (Kenya and Swaziland), feasibility studies are already in preparation.

— Soda ash production, Botswana:

At the request of the Botswana government, the CID is assisting with the formation of an European-Japanese promotion consortium for this US \$150 million scheme. To identify EEC firms in all EEC countries interested both in investing and buying part of the production, the CID is using the services of its "Olympic Circles" and of financial institutions, thus assuring concerted European action.

Regional projects

Inter-ACP cooperation is an important element of the Lomé Convention and one of the guiding principles of the project identification work of the CID. It is reflected by the relatively large number of CID-sponsored regional projects which are all aiming at adding value to raw material:

— Fishing and fish processing in Senegal and neighbouring ACP states:

This project, for which the CID has prepared an investment proposal and found an EEC joint-venture partner, foresees the setting-up of a regional fishing operation using two trawlers, with participation from Senegal, Gambia and probably Guinea Bissau.

A fish treatment factory to be built in Senegal, will process 50000 t of sardine and mackerel per year into canned and frozen fish, fish oil and meal, for export. Total investment will be in the region of US \$10.3 million. About 500 jobs will be created.

— Coal, iron-ore and steel project, Kenya/Swaziland:

At the initiative of the CID, the governments of Kenya and Swaziland

(*) Head of projects, Centre for Industrial Development, Brussels.

The Centre for Industrial Development

The Centre for Industrial Development was created, within the framework of the Lomé Convention, under the responsibility of the joint ACP-EEC Council of Ministers. It is guided and supervised by the ACP-EEC Committee on Industrial Cooperation. Its directorate is assisted by an advisory council grouping, on a voluntary and personal basis, personalities from the ACP states and the EEC with outstanding experience in industry, trade and finance.

The establishment of the CID helps to close the industrial cooperation gap between industrialized countries and industrializing countries, in particular the LDCs. From experience, it is now evident that the mere sale of "turn-key" factories and equipment has achieved little in transferring real resources and adapted technologies to developing countries. The ACP states therefore rightly suggested the creation of a body such as the CID to assist the setting-up, on an equitable basis, of new viable industries, after careful study of pre-conditions and available alternatives. To achieve its

objectives, the CID cooperates directly with the economic operators in the ACP and the EEC. The CID's internal organizational structure, with three departments, reflects its practical approach: information and coordination; projects; training and technology transfer.

The CID is concentrating its efforts on the development of agro and food industries, the processing—before exportation—of raw materials, and intra-ACP regional projects. These fields of activity are particularly suited to accelerating industrial cooperation, as they cover complementary interests. Another priority of the CID's work is the mobilization of the so far unexploited potential of EEC small and medium-sized industry which is especially suited for projects adapted to market conditions in ACP states. It is evident, however, that the preparation and negotiation of projects with participation of smaller firms requires a special budgetary effort both on the part of such firms and the CID.

In pursuing the above objectives, the CID gives particular attention to:

— "concerted" EEC industrial promotion measures aiming at the establishment of new national or regional ACP projects; and

— the establishment of ACP "Technology Centres"; these centres would have to play an important role in:

(a) the identification, evaluation and preparation of new projects (to a large extent by help of "trainees" stationed with the CID);

(b) the training of ACP technicians, in projects to be "repeated" in their home countries;

(c) the production of spare parts, the maintenance of plant and machinery for affiliated firms, and the development of prototypes;

(d) sub-contracting for small and medium-sized industries, using central production facilities on a "time-sharing basis", thus reducing their own investment requirements and overhead expenses.

have jointly undertaken a preliminary study (co-financed by the CID) on the possibilities of using Swaziland's (lower-grade) iron-ore and coal resources for a 200-300 000 t p.a. steel mill project in Mombasa, Kenya. The project would have an extremely important social impact in Swaziland, as it would provide continuous employment for over 400 workers losing their jobs in 1978 as a result of the exhaustion of the high-grade iron-ore mine at Ngwenya. Furthermore, it might allow Kenya—apart from meeting internal steel demand—to become an important supplier of steel products for the Gulf States, and thus to earn substantial foreign exchange.

— **Supply of denim material from Ivory Coast for jeans manufacturing in Jamaica:**

At the request of garment manufacturers in Jamaica, the CID has found in Ivory Coast, the (apparently) only ACP source of denim material, now allowing Jamaica to export jeans free of import duty to the EEC. This is a good example how inter-ACP cooperation can

take full advantage of EEC trade concessions granted under the Lomé Convention.

Integrated projects and technology adaptation

— **Low-cost housing in the Caribbean:**

The government of Jamaica, an EEC firm and the CID have jointly financed and undertaken a feasibility study for the manufacturing of 3000 m³ p.a. of cement-bonded particleboard in Jamaica, as a basis for a housing scheme which foresees the building of about 20000 houses per annum. Raw materials will be waste timber and cement from Jamaica.

The CID will sponsor the setting-up of a model house in Jamaica, and the execution of further studies for backward and forward integration of the scheme on a regional basis, such as the production of ceramic sanitary ware in Guyana or Surinam (the CID has developed a modular projects), or the manufacturing of doors, windows and furniture in the Caribbean states.

— **Engineering design and fabrication centre in Nigeria:**

The CID has completed a study on the establishment of an Engineering Design and Fabrication Centre in Nigeria. This centre, which might become a model for other ACP states, would include a machine tool and engineering workshop to train Nigerians in design and general workshop technology, with a view to adaptation of technologies to local conditions, and design and manufacture of prototypes and spare parts, which will be the basis for future commercial production by Nigerian entrepreneurs.

New sources of energy

— **Power alcohol from molasses:**

On the basis of an EEC-financed feasibility study on the processing, in Sudan, of about 65000 t p.a. of molasses power alcohol (for blending with petrol), yeast and animal feeds, the CID is sponsoring similar projects in other ACP states which are major cane sugar producers.

CENTRE FOR INDUSTRIAL DEVELOPMENT

Interventions by industrial sectors as of 10 November 1977

| Sector | Number of interventions | | | | | |
|---|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|
| | National | | Regional | | Total | |
| | CID inter- vention concluded | under active promo- tion | CID inter- vention concluded | under active promo- tion | CID inter- vention concluded | under active promo- tion |
| 1. Agriculture and horticulture | — | 3 | — | — | — | 3 |
| 2. Extraction industries and minerals processing | — | 16 | — | 2 | — | 18 |
| 3. Food and beverages industries | 3 | 25 | — | 1 | 3 | 26 |
| 4. Textiles and clothing | 1 | 7 | — | — | 1 | 7 |
| 5. Chemicals and pharmaceuticals | 4 | 10 | — | 1 | 4 | 11 |
| 6. Rubber and plastics industries, leather | — | 8 | 1 | — | 1 | 8 |
| 7. Timber products | 4 | 7 | — | — | 4 | 7 |
| 8. Metal processing | — | 6 | — | 1 | — | 7 |
| 9. Construction of vehicles | 1 | 3 | 1 | — | 2 | 3 |
| 10. Mechanical and electrical machinery and equipment | 1 | 5 | 1 | — | 2 | 5 |
| 11. Tourism, real estate | — | 2 | — | — | — | 2 |
| 12. Service industries and research | — | 6 | — | — | — | 6 |
| 13. Transport | — | 1 | 1 | — | 1 | 1 |
| 14. Other | 1 | — | — | — | 1 | — |
| Total | 15 | 99 | 4 | 5 | 19 | 104 |

Masters and apprentices

How can the developing countries learn more from the transfer of technology?

by LUCIEN PAGNI

The scale and urgency of the ACP countries' development problems encourage them to adopt solutions that will bring immediate economic benefits, such as roads and railways, ports and airports, and especially ready-made, "turnkey" factories. These are held to be the indicators of a country's degree and rate of development; and the ACP countries should logically build modern economies all the faster with financial and, in particular, technical help from the industrialized countries.

But something is missing from these ready-made solutions, and that is the technical know-how behind them. Without this expertise, the developing countries are not in control of their own development. Today's industrial Europe was largely enabled to rebuild its economy after World War II by American aid, but the phoenix would have remained a fledgling if Europe had not gradually learnt to do without financial and technical aid by acquiring, adapting and applying the technology necessary for real economic, and thence social, development.

Now the ACP countries face a similar situation. They receive "hardware", and the "software" in the form of technical advisers often serves to spread foreign methods and ideas rather than providing an adapted technology which can be taken over by the ACP countries themselves. The "transfer of technology" is too



frequently interpreted as providing a complete factory instead of a real transfer of technical and scientific expertise. And the imported factory often fails to work properly because it is designed for industrial, not developing, countries. The material back-up—transport, telecommunications, energy—may be no more adequate than the skills of the workers, who cannot always be trained.

What's the answer? How can the ACP countries become masters of their own trade through a proper apprenticeship? Construction under licence is gradually spreading, with contracts going to more firms in developing countries. Some European aid donors, such as the Danes, prefer this kind of cooperation to giving financial aid or sending out technical advisers. Yet scientific and technical cooperation is still a major problem.

One improvement could help a lot. In a report published by the

monthly paper "Demain, l'Afrique" last November, a questionnaire in the developing countries found that there was a good deal of resentment among young people of the "insolent" and "overpowering" manner of foreign development officials, and a sense "of being kept in a position of professional and social inferiority to foreigners in their own countries". Officials with the same qualifications as African nationals enjoyed higher pay, more authority and better working conditions, and were more interested in "increasing their country's influence" or "coldly adding up" their incomes than in teaching technology, the report claimed. The resentment is real enough in some cases. Foreign aid advisers are there to do a job, but more important, they are there to teach the local people how to do that job.

So ways must be found to speed up the transfer of technology that is so badly needed; some kinds of aid and technical assistance need to be thought out again, especially in terms of social contact; and technical cooperation between the ACP countries themselves could be taken much further. The ACP countries must take the initiative, but the political will must come not only from them but also from the industrialized countries. □ —

L.P.



A new science has been born: Desertology. More than 1500 experts from many fields discussed the problem at the recent UN Conference on Desertification in Nairobi and identified the priority areas of action at national, regional and international level.

More than 600 million people, 14% of the Earth's population, live in arid lands. The advancing sands are now choking the food production of some 80 million of them. The desert is expanding fast. About 650 000 km² of arable land south of the Sahara in Africa have turned to dust over the last 50 years.

Scientists at the Nairobi conference said what ought to be done. It is now up to the politicians to say what actually can be done. The target for implementation of an anti-desertification campaign is the year 2000. This is an urgent deadline. The land now at risk is recuperable at not too high a cost. Once the desert proper has overtaken it, recovery becomes a thoroughly uneconomic proposition, particularly in developing countries where it puts a brake on overall development.

DESERTIF



ICATION

"Action against desertification cannot yield results unless governments perceive it as an integral part of their established plans for social and economic development and as part of their collective effort to meet the requirements of the new international economic order", said Mostafa Kamal Tolba, UNEP executive director, and secretary-general of the Conference.

There were representatives of 95 states at Nairobi, 27 of them African ACP countries. This does not mean that other ACP countries are not concerned by the problem. They too are affected by soil deterioration. And this is too often caused by man's mismanagement.

The fight against the encroaching desert and the associated problem of drought, that scourge of the ACP states which is again threatening the Sahel, is part of man's general concern with preserving his environment.

Implementation of the plan of action, which has taken almost two years of painstaking work (in four preparatory conferences covering America, the Mediterranean, Africa, south of the Sahara, and Asia and the Pacific) to prepare, can and must halt the advancing sands.

The problem of desertification

by H. MENSCHING
and G. WINCKLER(*)

Gradual destruction of soil fertility owing to the impact of human activity on the land can occur anywhere. This process presents a serious threat, however, in areas where land use is such as to preclude any possibility of natural regeneration.

Vegetation, soil formation and, linked to these, the water balance play a major role here. However, a complete loss of natural fertility—leading to the creation of wastelands and desert-like conditions (the desertification process)—occurs only in the arid regions on the fringe of the world's major natural deserts such as the Sahara, the Middle Eastern deserts or the Thar desert in India. These fringe zones consist mainly of steppe, semi-desert, spiny-shrub savannah and parts of the dry savannah. In these areas, unsuitable forms of land use seriously damage the ecological balance, leading to desertification.

Desertification can also occur naturally, however, as a result of long-term climatic changes or short-term developments involving gradually dwindling rainfall over a number of years and even periods of drought. Droughts occur occasionally within the natural range of rainfall variation, and give a very clear indication of the limited potential of the land in semi-arid desert fringes. The catastrophic 1973 drought in Africa's Sahel region was a recent example of this. It focussed public attention throughout the world on

the problem of desertification for the first time and led to a call for counter-measures.

In 1974, therefore, following the worst of the Sahel drought and the international humanitarian relief efforts, the United Nations passed a Resolution calling for an International Conference on Desertification, which took place in August/September 1977 in Nairobi.

Definition of desertification

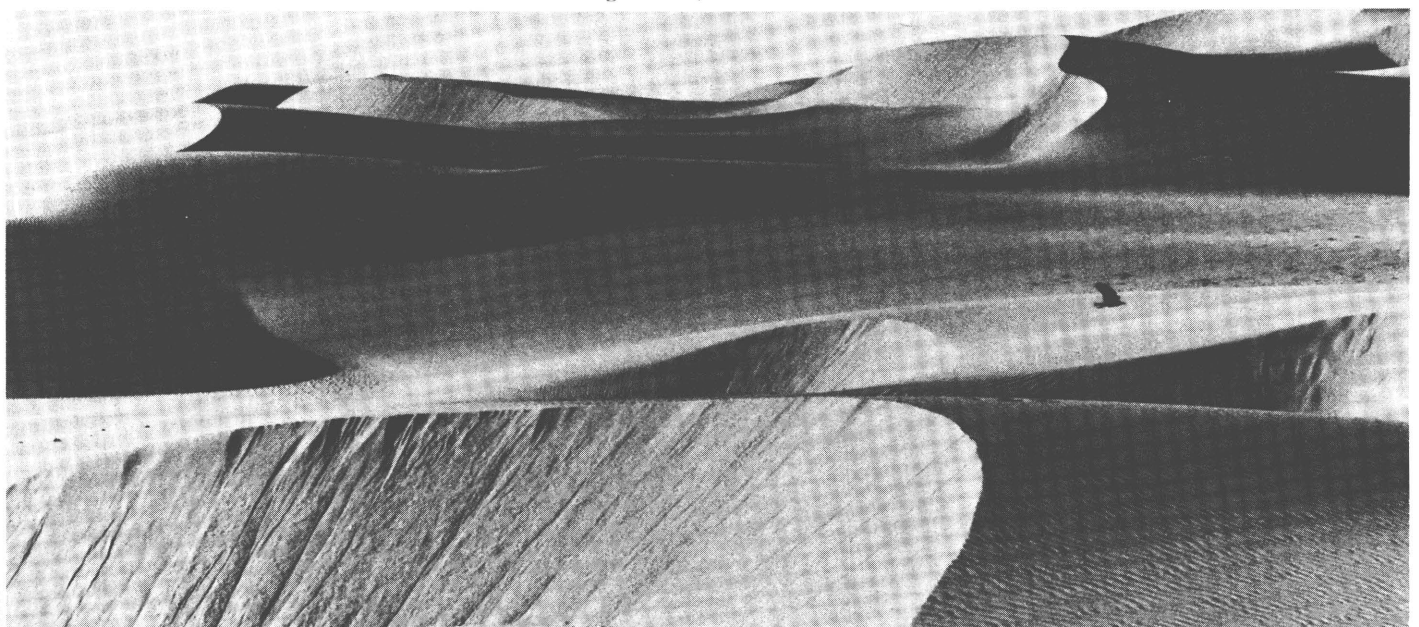
After some initial hesitation between "desertification" and the synonym "desertization", the first of these terms won international acceptance. The phenomenon is also described as "desert encroachment", particularly in certain developing countries affected by the problem. This term, however, could suggest merely the natural advance of the desert caused by a rapid "drying-out" of the climate, without taking sufficient account of the impact of human activities in these vulnerable areas.

As indicated above, however, two factors are responsible for desertification: climatic variation and ecologically unsuitable use of land by the populations of the arid zones affected.

As regards climatic variation, it should be pointed out that in view of the extraordinarily broad range of variation in tropical and subtropical climates rainfall levels in areas bordering on desert vary more than in other, less arid zones, both from year to year and over longer consecutive periods. These periods may be either favourable or unfavourable to husbandry. Human activity must in any event be adapted to take account of these natural swings, both in the subtropical winter rain climates and in the summer rain regime of the tropical periphery. The need for adaptation has been widely overlooked, however, with the steep rise in population growth in the course of this century and the spread of settled farming towards desert areas, particularly during the relatively long, wetter, favourable periods. It should be

(*) Professor Mensching is Director of Hamburg University Institute of Geography, and G. Winckler is Deputy Director of the Agriculture, Forestry and Fisheries Department in the Federal Ministry for Economic Cooperation.

The advancing desert (Kordofan in the Sudan)



pointed out here that climatologists are as yet unable to recognize incipient favourable periods or predict their occurrence! Furthermore, the forecasting methods devised to date have so far proved unable to predict long-term trends, such as a gradual change to a dryer climate.

It has therefore proved impossible so far to find definite evidence to support the claim that long-term climatic changes are responsible for the spread of deserts. The process of desertification, moreover, involves too rapid a deterioration of the ecological systems of marginal zones to be put down to gradual climatic change. All this indicates that desertification is almost invariably attributable to human agency.

It is thus a crucial problem for future generations, and affects their chances of being able to survive in the affected areas. Developing measures to counter the current progress of desertification will make great demands on the countries affected, and the help of the industrialized nations will be needed. There is also a vital need for scientific research into the process of climatic change, so that the measures taken against desertification can be adjusted in the light of emerging trends.

Analysis of desertification indicates that the most significant factor involved is the misuse of the limited potential of the land in the fragile ecosystem of the desert fringes. A similar conclusion is contained in the UN Plan of Action to Combat Desertification, which states that "human activities are primary contributors to the process of desertification", or again "desertification is basically a problem of land use or misuse".

Any development projects intended as part of the worldwide struggle against desertification should therefore be based on a definition including the following elements:

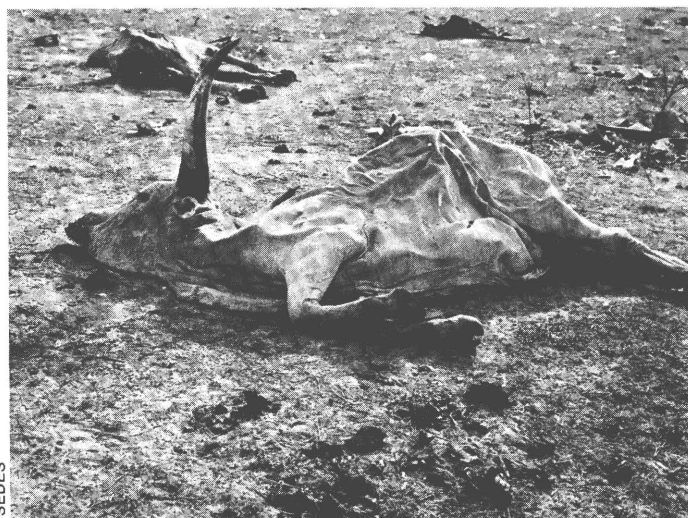
— Desertification consists of the destruction of the ecological potential through unsuitable systems of land use in fringes, and results in the advance of the deserts through human agency. The damage caused may be irreversible. **Desertification is therefore the spread of deserts caused by human activity.**

— Desertification can reduce large tracts of steppe or semi-desert savannah (spiny-shrub and dry savannah) to wasteland or even "man-made desert". Clearly, therefore, the primary task in the campaign against desertification must be to tackle the problem of adapting land use to specific, limited "agroecosystems" (to adopt the term used in the UNEP programme). The different types of land use undoubtedly form an integral part of the various socio-economic systems that exist in the affected countries. It is therefore essential that the inhabitants of the threatened areas should be educated and informed, as part of the campaign, about the interdependence of these factors.

The affected areas

Drylands cover some 30% of the earth's surface, the proportion varying from continent to continent(1): Africa: 50%; Asia: 37%; Australia: 80%; North America: 20%; South America: 19%; Southern Europe: 9%.

(1) **Drylands** comprise arid (desert) areas and semi-arid (steppe and spiny-shrub savannah) areas. **Arid:** 10-12 dry months, rainfall under 200 mm in summer rain areas, under 100 mm in winter rains areas. **Semi-arid:** 8-10 dry months, rainfall under 600/400 mm.



SEDES

It took the Sahel drought to alert the world to the problem of desertification and the need for action

Within this total area, all regions with a semi-arid climate can be considered at risk from some form of desertification. The extent of these regions is:

Africa: 18%; Asia: 15%; Australia: 30%; South America: 9%; North America: 11%; Southern Europe: 7%.

Desertification does not affect all the earth's semi-arid zones to the same extent, either in terms of the area threatened or the stage reached in the process, but the phenomenon occurs in each of the continents just mentioned. On the basis of the above definition and analysis of desertification, the only countries seriously at risk are those affected over a large part of their territory, where the inhabitants have little chance of moving to better land. Ethnic and traditional factors may also play a part here.

Desertification has also been observed and studied, however, in countries such as Australia, North America and the Soviet Union, and counter-measures have been implemented there.

The countries most seriously affected by the growth of deserts are to be found in the Old World, particularly in Africa, the Middle East and the Indian subcontinent. Most of them are developing countries. Even so, they should not be considered in need of help with this problem unless desertification results in serious damage. This excludes countries whose proportion of semi-arid land is nil or insignificant, for example those situated in tropical rain forest or wet savannah areas. However, certain countries consisting largely of desert may also be severely affected by desertification, particularly where there are oases or temporary pasture supporting nomadic populations. There is a particularly high risk of severe desertification in those broad zones where nomads (or semi-nomads) come into contact with settled (or partly settled) populations. These conditions are found in all African and Middle Eastern countries with a semi-arid climate. A high incidence of drought periods is another important characteristic.

The countries affected will in the main be those where the economy is largely based on crop and stock farming, these activities being carried on to some extent in areas located on the desert fringes. These countries' scope for non-agricultural use of the land is for the most part very limited or barely developed. □

Stop desertification by the year 2000

After the conclusion of UNCOD, the stage is now set for carrying the results of the Conference from the level of scientists to the level of decision-makers. The proposed plan of action will have to be put into effect at both the national and regional level. Taking advantage of public awareness of the desertification problem and of the support of the different governments, officials from UNEP, the major UN organizing agency of UNCOD, take up contact now with the executives of the countries concerned and of the major international donor institutions. In this respect, Peter S. Thacher, deputy executive director of UNEP, paid a visit to both the ACP group of countries in Brussels and to the European Commission. In the following interview with the "Courier" Mr Thacher outlines the overall concern which has to be raised for the environmental approach to development, explains UNCOD's role and assesses "the outstanding success of UNCOD from the point of view of both preparations and results".

— Governments at the Nairobi conference agreed unanimously on a plan of action: the plan of action applies at the international and national level. They agreed on six transnational projects that have been prepared to the point where they are ready for implementation. They agreed unanimously on the general funding arrangements and on the institutional arrangements including, rather a novel experience in recent years, the unanimous agreement that there should not be a new institution for desertification despite the outstanding importance of the subject. It was agreed that the institutional arrangements should be handled within the UN system by existing organizations. The success of the conference, I think, is also measured by the fact that it brought well over a hundred governments to treat this with the urgency and the importance that the problem demands. Perhaps the single most important effect of this conference is to focus the attention of governments at the international level on the need for action to halt this process by which the planet is losing arable soil.

► *If one looks at the list of participating countries, it is obvious that not all of them represented there have to deal with desertification, but with degradation of soils in general. Will something be done for these countries as well?*

— Yes, that is a part of the plan and I think, as you well know; the process is not one of spreading desert, it's not of sand covering over soil; rather the process is one of the loss of arable soil by loss of vegetation cover, by salinization, by all sorts of different natural processes in which man is a key factor.

► *How do you think the results of such a conference can be translated from the level of scientists to the level of decision-makers?*

— The six transnational projects are ready to go: the scientists have produced specific enough plans of action.



The spreading deserts can be halted and pushed back

What is now needed is concerted action on a regional basis by the governments directly concerned, whether they are in North Africa, north of the Sahel or south of the Sahara or in Latin America or wherever.

► *Developing countries have to establish their development priorities under pressure of growing population, food self-sufficiency and so on. Do you think desertification is considered sufficiently important beside these priorities?*

— I think there is no question about it, although I agree that it is often a question of terminology. From our vantage point and I think this is borne out in the Strategy for the Second Development Decade, the need to protect the environment is an essential part of any development strategy at the national or international level since without protection, if in the environment life support systems break down, there can be no sustained development.

The need for a longer-term view

► *Whatever action is taken to stop the progress of desert or degradation of soils, will it not also mean that people will have to be informed and trained?*

— Absolutely. I think the training and the public information aspects are amongst the most important. It really does get down to the question of how man allows his animals to

graze, to the question of the choice that the individual makes between grazing animals and cash-crops, to the daily choices in the developed world between using an automobile or other means of public conveyance.

► *Do you think that this new concern for the environment, from the desertification point of view, will be easily accepted by these populations?*

— Well, I don't think any of these are easily accepted, but I think that the need for a longer-term view is certainly apparent to the farmer. Perhaps it is often more apparent to the farmer than it is to the national planner! The farmer knows how much he depends on these natural systems and unless he is put under severe constraints, in which poverty is the principal constraint, left to his own choices, that farmer will look to a longer-term future in a way that is environmentally national.

UNCOD's role

► *Is there a close relationship between UNCOD and the 1971 Stockholm Conference on Environment?*

— I think there is a direct outgrowth of the Stockholm conference which has been seen in many aspects of the succeeding conferences including specifically the population conference, certainly the World Food Conference, and

Traditional farming can provide food without the capital and energy required by modern methods



certainly the Habitat conference in Vancouver. Many of the concerns first voiced in Stockholm about the quality of water in contrast with the quantity of water were given international prominence at the water conference in Argentina last year. Certainly the concern for the loss of arable soil that was registered at the Stockholm conference was a major impetus to the decision by the UN General Assembly three years ago to convene the conference on desertification and to ask the executive director of UNEP to be the secretary-general of the desertification conference. We look upon the water conference as providing inputs to future conferences including the conference on technical cooperation among developing countries (TCDC) for which Brad Morse of the UN development programme is responsible, and after that to the UN conference on science and technology for development, which I believe is going to be held in 1979. We see all of these as being inter-related. There are, for instance, implications from the Habitat conference for the desertification conference. So we do see these world conferences at the global level as a part of a series of meetings by which the governments of the world increasingly turn their priority attention to major problems which are sometimes loosely referred to as basic human needs.

“A dramatic confrontation for the future populations”

► *This conference found its origin in the awareness of the Sahel drought disaster. Now that this conference is over public awareness might well diminish again and it might even be necessary for a new catastrophe to occur to raise concern again for the problem.*

— I don't think so. I think that just as in many of the OECD countries, it was the incident of pollution poisoning in Japan or the great smog of 1952 in London or various other pollution incidents that triggered public awareness in these countries and led to the Stockholm conference. At Stockholm we all learned that environment as seen by the peoples of the world is much broader than pollution, is much broader than the protection of wild animals, and it involves such basic problems as the quality of fresh water, the loss of tropical forests, the danger to arable soil and these other broader concerns. Similarly, I think that the drama of the Sahel did serve to trigger international public opinion just in time to this broader question of desertification. I think now that attention has been focussed on it, these problems have received the attention they deserved. I do not think that environment is a passing fancy, I think it is a problem of growing concern to rich and poor alike, and similarly I think that the interrelatedness of the planet means that more and more people are going to realize that the loss of arable soil, which indeed in many parts of the world is continuing at an accelerating rate of loss, is the most dramatic confrontation for the future population of this planet. When you compare the growth rates of population, whether on a global scale or in particular regions of the world, with the rates of loss of arable soils, there is a very clear collision coming for which no foreseeable technology holds any real promise of hope.

► *Desertification and degradation concern mainly the rural sector and in most developing countries this rural sector is the basis of the economy. Does this lead to a conflict between traditional and mechanized farming?*

— I personally believe that with petroleum prices, or to put it more broadly, with energy prices what they are, mechanical answers to these problems are becoming prohibitively expensive for most of the countries in the world and therefore there has to be a harder look at some of the traditional ways, which are based on a less capital-intensive and less energy-intensive approach to the business of growing food.

International taxation: no novelty

► *One of the results of UNCOD was the last-minute acceptance of a special account for the financing of the plan of action. Yet there is a feeling that this will raise problems, especially among industrialized countries.*

— I think that the question for the special account, which was one of the few areas in which there was a lack of unanimous agreement in recommendations adopted at the conference, should not obscure the broader agreement there was on the needs for financial resources to assist governments to put the action plan into effect. I think that we are going to go ahead with various studies. I think that the General Assembly will ask for the studies that were put forward at the desertification conference, including studies of perhaps some novel ways of increasing the amount of international finance available to put the action plan into effect. There were various schemes that are loosely referred to as international taxation; although they are still controversial in the eyes of many governments, and many of these are very important governments, I do believe that this approach is going to command more attention in the years ahead. It is not entirely novel since many of the same governments have agreed to the concept in the context of the Law of the Sea negotiations, where the idea has long been accepted by rich and poor people alike that there should be an international revenue generated through the off-shore licencing for exploration and exploitation of resources beyond national claim. So, here is one form of what might be termed international taxation that has been accepted by the same governments who, when confronted with the same idea in relation to desertification, considered it to be something that they don't wish to look into further. I think they will eventually look into it.

► *Will more be done in the future to ensure that countries benefit from the experience of others? For instance, China has had considerable experience in stopping dunes. Do you think that this transfer of knowledge, technology and experience was concretely promoted by UNCOD?*

— I do and I think the benefits are not only to the developing countries. For example, a country like Australia, for which this is a very major problem, does perhaps have something to learn from the experience of other countries including even many developing countries. When we in the UN environmental programme use the word "regional", we often mean something quite different from the usual meaning. We don't necessarily mean a geographical region, we often mean a region in which the same environmental problems are faced and when we look at the technical cooperation among developing countries, we think in terms of what technologies there are in different eco-systems of the planet which might be interchangeable. Some of the Arab traditions which have grown up for the design and

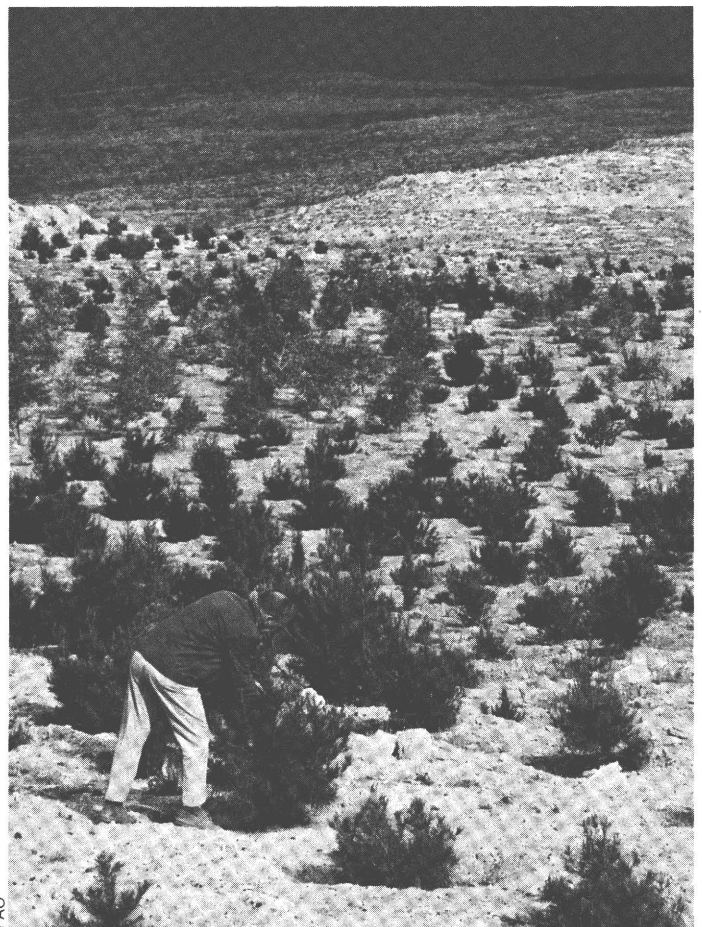
construction of settlements may indeed be applicable to comparable eco-regions far outside the Arab part of the planet.

Environmental considerations under Lomé

► *You are here in Brussels to contact several people within the EEC and ACP groups. What exactly is your aim and what questions do you want to raise between these two groups of countries?*

— This is the second time I have come here in the last few years and, as in the first visit when I accompanied the then UNEP executive director Maurice Strong, we looked at the work of the ACP in particular, to see what work being supported by the Community could be coordinated or harmonized within the UN system to attain certain environmental objectives in Africa, the Caribbean and the Pacific regions. Another aspect is the question that was raised at the Stockholm conference by Mr McNamara, the President of the World Bank: how do the aid-giving institutions, both international and national, take environmental considerations into account? There is no question that growth is necessary for the developing countries, But how can we ensure that the mistakes that have been made in the developed part of the world are not repeated in those programmes which are internationally supported by these countries? I am here really as a sort of an advanced agent for the present executive director, Dr Tolba, who we hope will visit the Commission perhaps in March as well as the

Pines and eucalyptus saplings hold back the desert in Algeria



FAO

Belgian government, and I'm really now trying to explore how the Community here is taking environmental considerations into account in the very generous programme of aid which grew out of the Lomé agreement.

► *The action to stop the desertification process is, of course, not short-term. Is there any target date for achieving a reversal of the process?*

— The general target is the year 2000.

► *I believe that there is a conference coming up organized by the FAO where new agricultural structures in the developing world will be discussed. Will UNEP, especially from the point of view of the environment, take action there?*

— We will. We had a meeting in December hosted by the FAO where we and a number of the specialized agencies of the UN system and the UN itself sat down collectively to carry out what is referred to as thematic joint programming. This meeting was decided on by the environment coordination board at its most recent meeting in New York and the subjects were soils and desertification, and a separate, subject was water. The thematic joint programme has thus focussed on the UN system's response to the results of both the water conference in Mar del Plata and the conference on desertification in Nairobi.

Environmental concern no subterfuge by rich countries

► *Your predecessor, Mr Stedman, told me once that many developing countries have a reaction against industrialized countries saying "you had your pollution, you had your environmental concern, now let us have industrialization, let us have our economic development including pollution, including environmental problems..."*

— That was a problem that did exist in 1971 and was, I think, largely laid to rest by the Stockholm conference recommendations in precisely these areas of environment and development. In 1971 there was a somewhat widespread belief quite vociferously put forward at meetings like ECOSOC in the summer of 1971, to the effect that this preoccupation with the environment was a subterfuge on the part of the affluent societies of the world to slow down the industrialization, to slow down the development. As one very senior official put it, to keep the people in the developing world in the state of happy savages. Since that time I think everybody has come a long way. The developing countries increasingly realize that they have everything to gain from clean development as against dirty development. Among the developing countries one sees in every continent administrative moves, reorganization, committees given the power to look at the environmental aspects of development planning, efforts to catch environment implications at an early enough stage in the process of developing plans for growth. I think there is no question but that many of these countries realize that this is actually more profitable. For instance, in the case of the petro-chemical industry a clean operation is more profitable simply because the price itself is high enough to pay for the technology needed to capture the sulphur that used to be wasted through the chimney. Now of course in the developed world these economics don't work quite so favourably because the petro-chemical



Peter Thacher (left) interviewed by Roger De Backer

plant is already in existence and it is a very expensive job to convert that plant. But the developing countries, given the choice of importing either a dirty old plan or clean new plan, have their eyes wide open and they know which way to go. And I do think that the whole concept of development continues to undergo changes in such a dynamic process, development is no longer measured purely in economic indicators. Development usually has some relationship to infant natality rates, to literacy rates, to employment rates, to indicators that are far from purely economic in their structure. The environmental indicators, which are difficult to quantify are nonetheless gaining increasing respect as the man in the street, in rich and poor countries alike, perceives more clearly that what he does today has an effect on the world in which his children are going to grow up.

And the deserts?

► *The concern is now to stop the degradation of soil, to stop desertification in general. But what about the land that has turned into desert? Does it mean that it has to be neglected and that it is no more of any use to anybody?*

— No, it doesn't mean that at all. I'm not a specialist in that matter, but I believe that there have been extremely encouraging results of research, in Iraq among other places, which suggest that with a relatively modest amount of fertilizers and moisture the vitality of what appeared to be barren land can be brought back remarkably quickly and inexpensively. As to proper deserts, like the Sahara, I think that there probably are points of the Sahara that for economic and other reasons are beyond recovery in terms of the present generation. But certainly there are large parts which are semi-arid where the value of the land today can be dramatically increased by technologies that are available and are within reach, given the political will of the governments and the people who live in those areas. I think that with an alert public opinion and the kind of support the governments have shown at the desertification conference, we can perform miracles. □

Interview by R.D.B.

After the Nairobi conference

The next steps

The Nairobi conference on desertification, organized mainly by the United Nations Environment Programme, brought together representatives of 95 nations and 65 non-governmental organizations and approved a plan of action to combat desertification. (*)

No previous UN conference has drawn so heavily on contributions from scientists nor worked on a higher or more comprehensive level. After the evaluation and assessment of all the information available, one fundamental point was highlighted by the panels of consultants and the secretariat: action need not wait on further research, although this may facilitate the tasks of the future.

The key concept to combat desertification is proper land use. Desertification must be seen as a human problem rather than one concerned solely with the deterioration of ecosystems. If man is its agent, he is also its victim. The degradation of land is invariably accompanied by the degradation of human well-being and social prospects. All efforts to combat desertification must therefore centre on the welfare of man and must contribute to the development and prosperity of the communities affected. From the human perspective, international action might well assign priority to the most vulnerable nations and national action might well focus on the most vulnerable peoples rather than on the most vulnerable land, although, of course, these categories often coincide.

All these concepts were fully endorsed and supported by the conference.

Mapping the advancing desert

The secretariat was directed by the UN General Assembly to prepare a world map of areas affected and likely to be affected by desertification. It was prepared by FAO and UNESCO with the assistance of UNEP and the World Meteorological Organization. This was an innovative and difficult exercise because it mapped something that had never been mapped before, that is, a process rather than a static situation.

Well aware of the problems involved in mapping such a process at a global scale of 1:25 million, FAO produced an experimental map of Africa north of the equator at a scale of 1:5 million, and another experimental map at the same scale showing arid areas in South America. Encouraged to produce maps based on criteria of their own choosing, individual scientists produced three other innovative maps—one

based on a climate aridity index, another on aridity and drought probability, and the third showing the state of desertification in hot, arid regions. All these maps received very close and critical scrutiny by the conference. This critical approach laid a firm foundation for the mapping of desertification phenomena and established the need for the eventual production of an atlas of desertification.

The plan of action

The draft plan of action to combat desertification grew out of the assessment of available information on desertification. This as well as earlier drafts of the plan received detailed scrutiny and careful refinement at the hands of governments, of the United Nations organs and specialized agencies, of individuals and of delegates to the regional preparatory meetings, as well as the fifth session of the governing council of UNEP in its capacity as the inter-governmental body responsible for the conference.

The recommendations of the plan of action come under four headings: recommendations for national and regional action, recommendations for international cooperation, recommendations for immediate initial actions, and finally recommendations for following up implementation of the plan of action.

The plan opens with a recommendation that desertification be assessed and evaluated, both in terms of a continuous monitoring of the process and the evaluation of specific situations. Assessment and evaluation lead to the formulation of land use plans involving optimum and proper management. Land use and management lead, in turn, to principles of correct water management and to the practices that should be adopted for the major dryland ways of life—pastoralism, rain-fed farming and irrigation agriculture.

The plan then turns from physical to human considerations in the conviction that proper land use depends ultimately on the land user. The standard social indicators of people living in vulnerable areas should also be monitored, their condition assessed and an effort made to provide them with social services of a quality comparable to those provided to persons living in more accessible regions. They should be provided with insurance against the risk of drought. Extension services should bring them the science and technology they need. The plan also emphasizes the strengthening of indigenous science and technology to enable the less developed countries to cope with desertification problems.

No new international machinery

Recognizing that national action will be central to the fight against desertification, the conference called for the establishment of national machinery where none now exists. It also felt that new international machinery was not required. What is required is the support and cooperation of all appropriate elements in the United Nations system, and so the conference invited the General Assembly to request the Secretary-General of the United Nations and the govern-

(*) This article was provided by UNEP headquarters in Nairobi, but is not an official document or publication.



Stabilizing dunes, one way to hold back the desert

ing bodies of its specialized agencies to provide this support.

The conference proposed that responsibility for follow-up and coordinating the implementation of the plan of action should be entrusted to the United Nations Environment Programme, its governing council, its executive director, and to the Environment Coordination Board (ECB).

The ECB would ensure cooperation and coordination among all elements of the United Nations system, while UNEP's governing council would stimulate and supervise the broad implementation of the plan of action.

Special account to back plan

On the question of financing the plan's implementation, a divergence of views appeared at the conference, with many developing countries, particularly those in Africa, favouring the establishment of a special anti-desertification fund, while other countries favoured a consortium approach. The participants agreed to invite the General Assembly to take the necessary steps to create a special account for implementing the plan of action, which could draw its resources from a variety of funding sources.

The conference also proposed that after the General Assembly adopts the plan of action, the executive director of UNEP should convene a consultative group, including major donors and multilateral financing agencies, to mobilize resources and coordinate activities undertaken with such resources.

There were eight resolutions approved by the conference. All were passed by consensus except No. 7, which was passed by a majority vote. They were: 1) the implementation of General Assembly resolution 3337 (XXIX), the originator of this whole process; 2) financial and technical assistance to the least developed countries; 3) drought in the Sahelian countries; 4) the effect of weapons of mass destruction on ecosystems; 5) colonial desertification practices; 6) desertification in Namibia; 7) the associated case study on the

Negev; and 8) a resolution of thanks to the President, government and people of Kenya for providing a site for the conference.

Regional cooperation

Immediately following the conference and in order to maintain its momentum, a workshop was held in Nairobi attended by 102 people representing 49 countries plus consultants and United Nations officials. The basic purpose of the workshop was to design specific programmes in accordance with the general prescriptions laid down in the plan of action. Although many projects will be national in scope, the workshop participants had before them the six transnational projects worked out during the preparations for the conference as examples of the kind of regional cooperative action that the plan encourages.

The conference gave concrete guidance on how to mobilize financial resources to start immediately the implementation of elements of the plan of action. It further pointed towards possible other sources of financing and asked that an inter-governmental body study them and report back in a year's time to the General Assembly on what is viable and what is lacking.

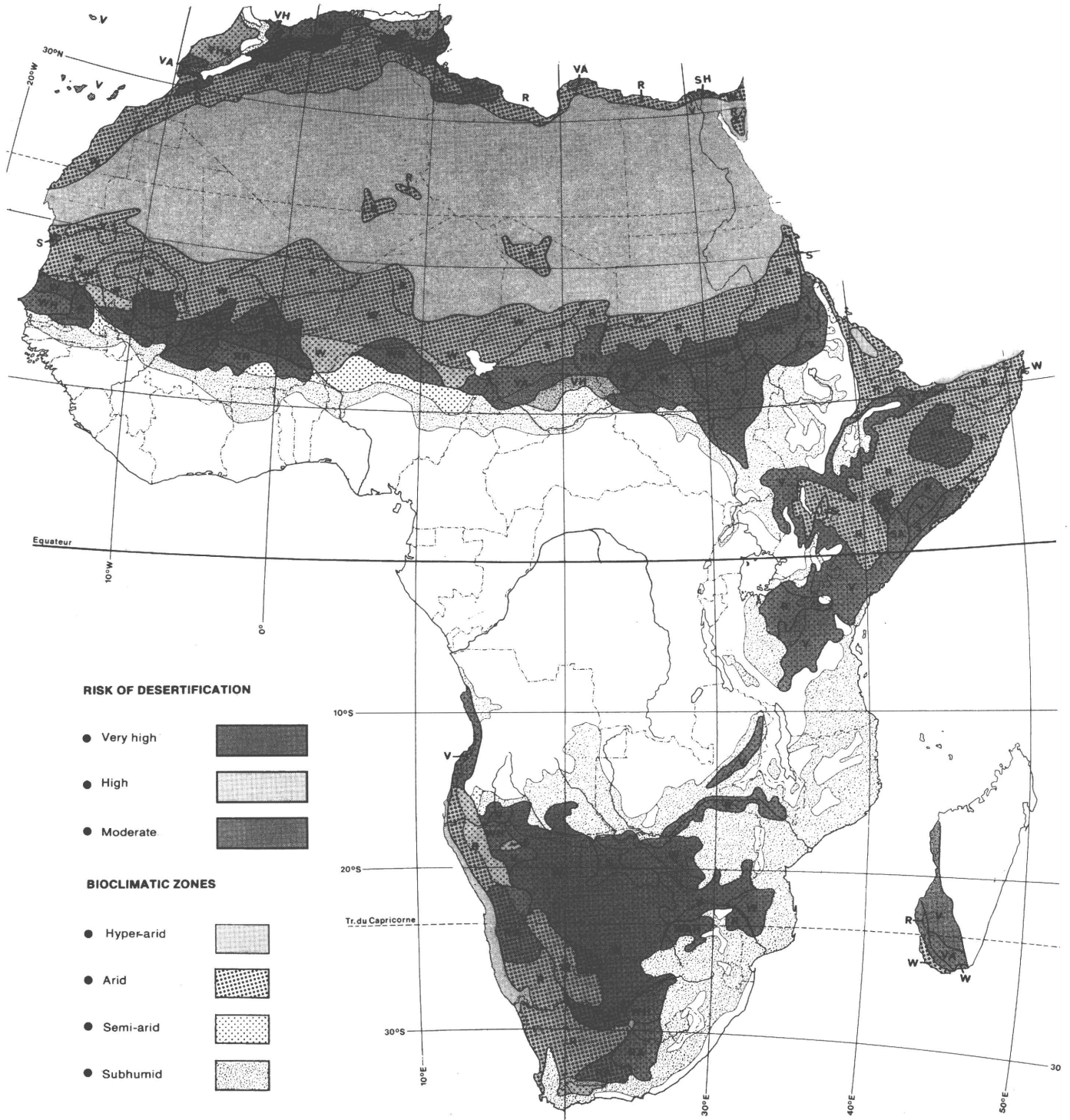
A question of priorities

Finally, implementation of the plan of action depends primarily on the political will and support at the national level. National policies of land use may need radical changes. Combating desertification must be among the priorities of national plans for social progress and economic development. National machinery must be established or reinforced so as to work effectively. Additional national resources must be appropriated to combat desertification and reverse it.

Few actions the international community could take would so directly affect and enhance the welfare of mankind. □

DESERTIFICATION IN AFRICA

Below is the African continent as it figures on the world map of desertification prepared for the UNCOD meeting(1). Four UN agencies—UNESCO, FAO, UNEP and the WMO(2)—and a number of international consultants drew up the map, which shows both desert areas and areas threatened by desertification.



(1) Reproduced with the permission of the FAO (document A/CONF. 74/2).
 (2) World Meteorological Organization.

The map opposite shows both those areas in Africa which have become desert zones, and those which are in danger of becoming deserts. Below are summaries of some of the methods used to draw up the map to illustrate the types of desertification taking place. Soil degradation in arable areas can affect any ACP country, but as the table below shows, the African continent, where there are 41 ACP countries, is the most affected by the process of desertification next to Australia.

W Areas subject to sand movement:

This class of region is subject to many related eolian processes, indicated for instance by active sand dunes (**erg, nefoud, koum**), fixed dunes with barren sandy patches on their crests, sand sheets on sandy soils which may be modified by overgrazing or overcultivation and form sandy hillocks (**nebkha**), and residual sandy surfaces left by deflation of fine material.

R Stony and rocky surfaces subject to stripping by deflation or sheet wash:

An important indication is the occurrence of stones at the surface. These include the **reg** or **serir** of the Sahara and the **gibber plain** of Australia; also included are piedmonts mantled with stones or rock debris and areas of extensive rock outcrop or of calcareous or gypseous hardpan (**hama-da**).

V Areas subject to soil stripping and accelerated gully erosion:

Desertification processes in these areas include stripping of topsoil and accelerated run-off leading to gully erosion on slopes and/or sheet erosion on flat land. There may be an enlargement of bare areas through sealing of the soil surface by rain splash or by deposition of silt or fine sand on the surface soil in depressions, resulting in increased run-off and a decrease in available water and hence poor seed germination. In undulating areas, sheet, rill and gully erosion by intense rain, particularly following a long dry season, can result in the loss of vegetation by removal of seeds or by undermining of trees.

S Surface subject to salinization and alkalization:

In these areas there is likely to be an expansion of saline and alkaline soils, with vegetation degraded or absent through excess salt or bad soil structure, for example impermeability due to sodium excess. These are (A) mainly depressions with interior drainage and include **sebkhas, chotts, kevirs, takyrs, playas, salars** and **salinas**; (B) alluvial and littoral plains of very low gradient and with fine texture soils.

H, A Human and animal pressure:

Population and animal densities have been used as measures of human and animal pressure on the land, which, when excessive, results in overstocking, excessive cultivation through reduction of fallowing or through mechanization, and eradication of trees for firewood. The limits of 7 inhabitants per km² or one animal unit per 5 ha were chosen as critical for the arid zone, and 20 inhabitants per km² and one animal unit per ha for the semi-arid zone. Population and cattle densities were taken from various reports and atlases. Where possible, only rural population was considered, because town population affects only a small surrounding area, not depictable at a scale of 1:25 000 000. For animal units we have adopted the following equivalents: one bovid = 10 sheep or goats = 2 asses = 1 horse = 1 camel. The values of critical animal or human population densities were fixed arbitrarily in the present exercise, but at a later stage it is hoped to evaluate potential biomass of pasture and productivity of crops by modelling data on soil, climate, and type of vegetation or crops, and in this manner to determine an appropriate limit for the density of man or animals in any region.

Desertification hazard

This has been evaluated on the basis of vulnerability of the land combined with human or animal pressure, and is classified into three categories: very high, high and moderate.

The desertification hazard is very high if the region will be subject to very rapid desertification if existing conditions do not change.

The desertification hazard is moderate if the region will change only slowly from its present stage to a more degraded stage if existing conditions do not change.

A high desertification hazard lies between these two conditions.

Africa compared with other continents

Extent in km² of area already affected and likely to be affected by desertification, by continents

| | South America | | North and Central America | | Africa | | Asia | | Australia | | Europe | |
|---|-----------------|-----|---------------------------|------|-----------------|------|-----------------|------|-----------------|------|-----------------|-----|
| | km ² | % | km ² | % | km ² | % | km ² | % | km ² | % | km ² | % |
| Very high degree of desertification hazards | 414 195 | 2.3 | 163 191 | 0.7 | 1 725 165 | 5.7 | 790 312 | 1.8 | 307 732 | 4.0 | 48 957 | 0.5 |
| High | 1 261 235 | 7.1 | 1 312 524 | 5.4 | 4 910 503 | 16.2 | 7 253 464 | 16.5 | 1 722 056 | 22.4 | — | — |
| Moderate | 1 602 383 | 9.0 | 2 854 293 | 11.8 | 3 740 966 | 12.3 | 5 607 563 | 12.8 | 3 712 213 | 48.3 | 189 612 | 1.8 |
| Extreme desert | 200 492 | 1.1 | 32 638 | 0.1 | 6 177 956 | 20.4 | 1 580 624 | 3.6 | — | — | — | — |

Development and desertification

by J.G. KIANO(*)

The UN Conference on Desertification in Nairobi (29 August - 10 September 1977) highlighted the concern of the international community regarding desertification. This conference, over which I had the honour to preside, spelt out the danger to the conditions of life of mankind caused by the continued spread of desert conditions.

The danger included the ruin of potentially arable land, repeated famine in the affected areas and the destruction of the means of livelihood for millions of people. The conference also indicated how large amounts of money which would otherwise be used for economic and social development have to be diverted to combat desertification. In other words, desertification has extensively adverse effects on development.

An additional burden

Deserts are defined as areas of sparse or absent vegetation, extremely low or absent rainfall and low biological productivity. Desertification is the extension or intensification of such conditions. It is a phenomenon involving climate, soils, flora, fauna and man's own habits in his attempt to make a living. Desertification is a form of degradation of land, deterioration of natural resources and the spread of aridity in areas previously productive.

Because of its magnitude in terms of the large amount of land affected and the millions of people who suffer the consequences, desertification constitutes an imminent danger to the conditions of life of mankind. The occurrence of desertification knows no national boundaries or continents. It is to be found in such industrialized countries as the USA and the Soviet Union, just as it is in China and developing countries in Africa and Asia.

In the industrialized countries the effects of desertification are being fought with more effectiveness because such countries have both the money and the manpower to carry out re-afforestation programmes, water conservation projects and even land reclamation activities. In the developing countries, however, the spread of deserts or arid zones constitutes an additional burden to the already scarce resources for much-needed development. It is to be remembered that developing countries are largely agricultural and that their economies depend very much on land. When arable land becomes progressively arid and where drought conditions occur, the consequences really multiply. In the first place, food production becomes drastically curtailed. Thousands of head of livestock that provide the people with meat and milk and some income die as a result of drought. In many cases also, there is a mass exodus of people from the stricken areas causing unbearable overcrowding in the

better watered areas. Such an exodus often means the abandoning of whatever development projects may have been started in the stricken areas and thus results in wastage of the development finance previously spent in such areas. Governments concerned have also to look for famine relief supplies and, generally, other development activities are halted to enable the government to handle the crisis.

It was therefore most gratifying to note that the UN Conference on Desertification pinpointed the special constraints experienced by developing countries as a result of desertification.

Another serious danger caused by desertification is malnutrition. Yet the human resource is the most important resource for development. When people are undernourished they become more vulnerable to various types of diseases and their productivity is very adversely reduced. In short, the loss of good land as a result of the spread of arid conditions has a direct and adverse effect on development. This is not only in terms of the standards of living of the people but also in terms of the very large amount of money diverted from development to provide means of livelihood for the victimized population.

Taking stock of the situation

In the conference, the approved Plan of Action stressed three levels of action, namely: national, regional and international approaches in combating desertification. It was felt that each respective nation had the primary duty of identifying the rate at which arid zones were spreading, the rate at which population pressure was degrading the land and the rate at which vegetation was being denuded for human habitation. Having done so, such governments would identify specific projects to alleviate the situation. They would also quantify, in terms of finance and personnel, the requirements for the implementation of such projects. In this regard, it was stressed that training facilities had to be expanded or established where they do not exist for the necessary personnel in such subjects as hydrology, water and soil conservation, re-afforestation, various branches of engineering, dam construction and drilling for underground water. Experiments as to what type of vegetation would grow in different areas suffering from desertification were recommended at the conference. Research for the kind of food crops which could do well in less-watered areas were also advocated.

The Kenya government is carrying on experiments and research along these lines and particularly in agriculture and afforestation. For example, the Kenya National Environment Secretariat together with UNESCO is doing research on the types of vegetation that could be utilized to re-vegetate some of the dry areas in the country. Additionally, agricultural research in Kenya is constantly producing strains and hybrids of food crops such as maize which could grow in semi-arid zones, and which are relatively drought-resistant.

The Nairobi conference felt that when such specific projects are done, it would be easier to raise funds for their execution from donor governments and international institutions. One point should be stressed here: when a large portion of development finance goes to the fight against desertification, the overall national development of our country is to that extent slowed down. The exercise

(*) Kenyan Minister for Water Development, who chaired the UN Conference on Desertification in Nairobi.



Masai herdsman are threatened by desertification in this area of Kenya

becomes a fight to maintain the *status quo*, or actually fighting to avoid going backwards in terms of the conditions of life of the people.

The need for regional action to fight the desert

In addition to the national approach to this problem of desertification, it is important to stress also the regional approach. Often tragedies arising from drought extend beyond national boundaries and victimize populations in a group of neighbouring countries. Again, such neighbouring countries may have shared rivers and other water resources. Where such situations occur, regional planning against drought and desertification in general becomes essential. Without such regional cooperation, the anti-desertification programmes may have negated similar projects in the neighbouring countries. Furthermore the adverse effects of desertification on national economies often spread to a whole region as well. The lessons learned from the recent tragedies in the Sahel region showed how development could be halted and economies actually retarded by the occurrence of drought and desertification at the regional or transnational levels. Therefore where water conservation and water utilization is related to shared water resources, it is imperative that the neighbouring countries sharing such resources embark on joint regional projects. One of the reasons is that increased water usage by one country could adversely affect the neighbouring country and thus accelerate desertification in the latter. Take, for example, the matter of irrigation. Irrigation is vital to a very large number of Third World countries. Where such irrigation is carried out from a river or fresh water lake extending beyond national bounda-

ries, there is a need for cooperation among the countries affected.

Irrigation is a major source of increased food supply. Irrigation is also an effective method of land reclamation. This is all the more significant when one considers that many of the Third World countries have increasing population and yet much of their arable land is being affected by desertification. When planning large-scale irrigation projects or major water conservation schemes, regional cooperation is an absolute necessity if water is to be utilized profitably as a shared resource.

Generally speaking, irrigation is a major input in the agricultural development of a country, the benefits of such irrigation being to increase the total production of the country concerned. But where irrigation is simply a weapon of combating desertification, it tends to only salvage what would have otherwise been lost to aridity. In that case it becomes only a salvaging exercise and not an overall development factor. Here again we see how desertification militates against increased production, turning development programmes into salvaging exercises to avoid loss of livelihood for the people affected, instead of adding productivity to the economy.

Highest priority

As the Nairobi Conference on Desertification clearly indicated, the war against the spreading of arid zones cannot be finally won without the international community working in unison. The required funds, the required personnel, the required coordination of the various programmes all call for an international approach to the problem. The developing countries emphasized that the international community has to be prepared to set aside more funds to fight desertification. Also funds flowing through bilateral and multilateral channels will have to be increased considerably if the situation is to be satisfactorily handled. Funds for international cooperation are not inexhaustible. The Third World countries, while asking for increased funds to fight desertification, are realistic enough to know the many demands on the sources of funds for international cooperation. However, the question of priorities must be given fairer consideration. The fight against famine, destruction of crops and livestock, as well as the threat to human welfare by desertification call for the highest priority in the allocation of funds internationally and bilaterally.

It is rather disturbing that the world community is realizing the imminent danger of desertification at a time when the United Nations system is already being re-assessed to avoid proliferation of its organs and agencies. One hopes strongly that the fear of the proliferation of UN bodies does not lead to inaction regarding institutionalizing the necessary mechanisms for fighting desertification.

The old adage that prevention is better than cure applies most relevantly to this issue of desertification. When tragedy struck the Sahel region, millions of dollars in cash and kind were mobilized to save the suffering millions of people and their livestock.

Other occurrences of famine have also been met by large-scale mobilization of food supplies from the more fortunate areas. When such crises occur, development in the affected areas is unavoidably halted while salvaging the situation. The time has come when the world community must take preventive measures on a large scale to eradicate the factors that cause famine and land degradation. The spread of arid zones can be halted and even reversed. This is the time to take all the necessary steps to achieve this aim. □

Man: creator or victim of the desert?

by Edmond BERNUS and Paul PELISSIER(*)

"Desert" is synonymous with absence of life and biological death. But total desert is rare; traces of life can appear in even hyper-arid areas after exceptional rainfall and if seeds are blown in by the wind. Deserts are not static. Life can be brought to the desert and the desert can extend its frontiers, encroaching on regions hitherto only semi-arid and extinguishing life. This advance is all the more frightening in that areas threatened by aridity are extremely vulnerable to it.

There are many signs that the desert is on the march. The cave paintings and rock drawings that survive in the mountains of the Sahara show that wild animals (elephants, hippopotami, giraffes and many others) that have now disappeared lived in the sort of conditions that would only be found in the humid tropics today. There are drawings of cattle grazing on pastures—the sort of stock-rearing only found in the Sudan today. The decrease or total disappearance of wild life, men and domestic animals reflects the gradual disappearance of the water and pastures on which they lived.

The key question is whether desertification is a natural phenomenon, and man therefore its victim, or whether it is man-made. If the former is true, the spontaneous advance of the desert would be *desertization*. In the latter case, man would be the cause of *desertification*. The question, which the 1969/73 Sahel drought made world news, is hard to answer in view of the inadequacy of research and, in particular, in view of the very short period covered by documents on the subject. Another problem is the contradictory data and the succession of drier and wetter phases on the desert fringes, particularly in the Sahel. One thing that must be avoided is mixing up the different scales of the phenomena in point. Desertization takes thousands of years to victimize man, but desertification only takes a matter of generations and man may be the main cause and, therefore, ultimately responsible for it.

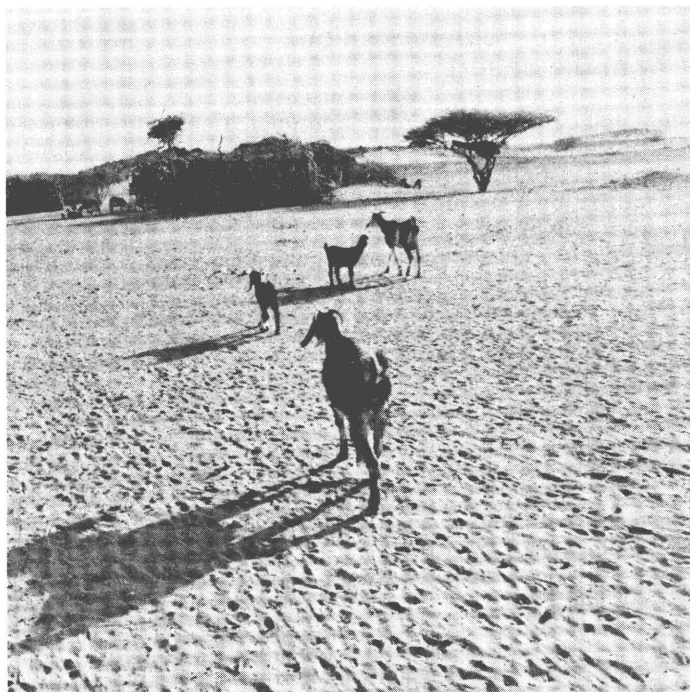
Man as victim of the desert

A comparison between the worsening conditions in arid lands, as illustrated by cave paintings, and the current trends in areas threatened by desertification must be carried out with care. Desertization reflects a change in climate over thousands of years. Desertification only covers environmental changes recorded in relatively recent history (which often

only begins in Africa with the first voyages of discovery). Comparing phenomena with such vastly different causes or seeking a trend running from some 3000 or 4000 years BC to today will not produce any serious contributions to our knowledge of contemporary desertification.

Writings from as far back as the Middle Ages show that, generally speaking, settlements in various places along the southern edge of the Sahara have been destroyed by increasing aridity. In southern Mauritania, traces of agriculture methods requiring 400-500 mm of rain have been found in places that only get 200 mm today. Stock-breeding has replaced broader-based agriculture, showing that man adapts to a climatic change which is beyond his control and to which he therefore has to submit.

Many specialists saw the 1969/73 drought as no more than an acceleration of this process, i.e. an essentially climatic, irreversible phenomenon. They blame the steady drop in rainfall (recorded at older weather stations like St.-Louis in Senegal) on the continuing rise in temperature in the sub-tropics, assimilating diminishing rainfall and climatic desertization. This theory was propounded as early as 1920, claiming that Africa was becoming gradually drier, although the rainfall records were not old or adequate enough to prove it. This position seems to us to be as premature as it would have been to claim in 1955/65 that the Sahara was retreating, on the grounds that a series of wet years had just made the Sahel green again. Other specialists, particularly hydrologists, clearly support the idea that climate varies little on the human time-scale. They examined rainfall and hydrological readings during the last drought and decided that there was no general trend towards aridity in the Sahel and that, if desertification occurred, it was the fault of man. The argument is this: aridity is a question of



Domestic village livestock and firewood gathering create a totally barren envelope around the villages, sometimes several kilometres across

(*) Respectively director of research at the French Office for Scientific and Technical Research Overseas (ORSTOM) and professor at the University of Paris X.



“The woods which covered the Sahel have been degraded quite independently of any climatic factors”

thousands of years and there is no proof that our climate is becoming drier, but desertification, i.e. the deterioration of plant cover and the consequent runoff and erosion, has to be blamed on man.

Man's responsibilities

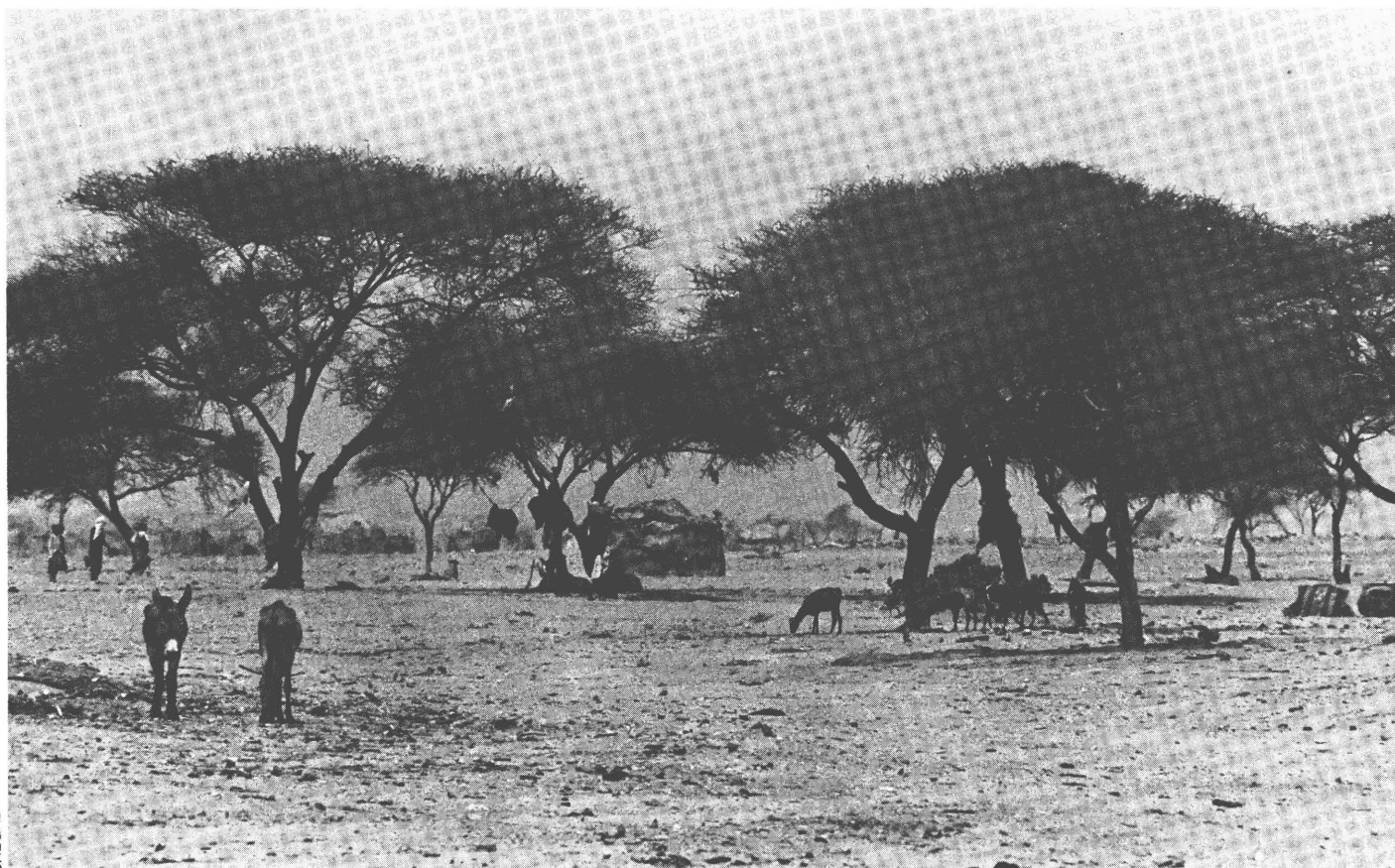
Man and his herds have been branded as destroyers many times since the beginning of the century. In colonial times, administrative centres and trading posts grew up across the Sahel, bringing about a sudden increase in the felling of trees to provide wood for housing and heating in the urban centres. Over the same period, nomads began to settle, leaving their mark too on the vegetation. In addition, the growth of cash crops meant more land clearance and shorter fallow periods, bringing about a general degeneration of tree development. The destruction of plant life often brought back wind erosion and shifting dunes, both of which have become particularly acute problems since World War II in that they have been exacerbated by the population explosion, the increasing herds and urban expansion. Each town, administrative centre and market has become a pole of attraction for man and beast and, therefore, the centre of a zone that has been desertified by deforestation and overcropping. Consider that both population and livestock in the Sahel have more or less doubled since 1945 and it is easy to understand that the 1969/73 drought hit an overexploited area.

However, it is not just the development of a pastoral way of life and the emergence of urban centres that have made the Sahel particularly vulnerable to climatic accidents. Farming has worked its way northwards and this has made a large contribution to desertification. This lesser-known factor is worth emphasizing. Over the 20 years before the drought, the southern fringe of the Sahara had a relatively large amount of rainfall and this series of good years led to an invasion of farmers, and the attendant land-clearance, in what had been a pastoral area. In Niger, for example, farmers pushed northwards, planting fields of millet and groundnuts in the area traditionally occupied by nomadic herdsman. Farmers in Senegal occupied the edge of the pasturelands in the Ferlo, originally intended for the Peuls.

Over the whole region, the pressure of cattle-breeders on a fragile environment was increased by agricultural pressure and an increasing amount of land clearance. Over the last 30 years, the woods which covered the Sahel have been degraded quite independently of any climatic factors. But the disappearance of tree cover has had serious repercussions on the whole of the environment. Runoff accelerates, ground water is no longer replaced, the water tables drop and erosion attacks the soil, robbing it of its richest elements. By destroying the vegetation, man becomes an agent of desertification without any help from the climate. The exploitation of pastoral resources by the herds, combined with improved animal health, has a comparable effect. Overgrazing and trampling denude the trees and bushes and destroy the grass. A series of dry years on top of this spells disaster for both the herdsman and his animals, although the disaster has nothing to do with a longer-term climatic trend.

Conclusions

If we agree to keep desertization (cause and development independent of man) and desertification (due to uncontrolled exploitation, primarily by man, of a vulnerable environment) separate, then a number of conclusions clearly emerge. First, we do not know how the climate is evolving on the fringes of the desert and it would be wrong to interpret a temporary crisis as a sign of an irreversible turn for the worse. Varying rainfall is a permanent feature of the Sahel, as any of its peoples' traditions will show. Second, the arid and semi-arid areas are the parts of the globe we know least about and prolonged research is the only way to find a sure answer to the problems of their development. The one sure thing is that the Sahel's problems will not be handled by the straightforward transfer of technology from the industrialized world. There is more to be gained from traditional ways of coping with the climatic uncertainty of the Sahel than from sophisticated techniques produced in California. Third, man must face up to his responsibilities. The fringe areas of the desert are fragile, vulnerable places where population must be kept down, at least until new, replaceable resources, starting with solar energy, have become available. □



SALGADO

Bringing the Sahel back to life

To talk of stopping the advance of the desert is too restrictive in referring to the Sahel, the arid sub-Saharan area of Africa so disastrously hit by drought in recent years.

As Idrissa Yaya, director of projects and programmes for the CILSS (inter-governmental committee to combat drought in the Sahel)(1), told the "Courier", desertification in the Sahel is one of the fundamental problems of the area and now the subject of an overall approach aimed at meeting the basic needs of the populations concerned. The anti-desertification campaign must be organized in the light of overall development, added Jacques Stebler, CILSS secretariat technical assistant, who specializes in forestry and is rapporteur for the Joint CILSS/Friends of the Sahel ecology group(2).

"The Sahel is merging into the Sahara"

What could be termed Sahel-type desertification is desertification as it has always occurred in the Sahel so far. "Some parts of the world are probably more arid and

(1) The CILSS was set up in 1973 with the following members—Cape Verde, Chad, Gambia, Mali, Mauritania, Niger, Senegal and Upper Volta. There is a technical secretariat based in Ouagadougou (BP 7049), Upper Volta.

(2) The Club of Friends of the Sahel is an informal association where donor countries (primarily the members of the OECD) and members of CILSS are on an equal footing. This is a flexible means of devising and implementing the financing for an overall development plan for the Sahel.

perhaps more easily degraded in theory. But, for an arid region, the Sahel has a fairly dense population whose activities accelerate the process of desertification, which has, in addition, been hastened by five years of drought. So the Sahel is a special case. I know of no other area where people and their means of life have been so hard hit," Mr Yaya said.

He mentioned his own village, Dori, in Upper Volta, as an example. "When I was young, there was a forest three kilometres outside our village. There were thick bushes and thorns where we went looking for firewood, although we couldn't go too late because there were hyenas and jackals. There is nothing left today. No brush. No animals. The stream where I learned to swim is full of sand and there's nothing even deep enough to drown in. This area was also used as pastureland where the bourgoutière, a favorite plant of Sahel cattle, grew. Now, since the drought, there are so many animals that the plants have been cropped to the roots and they have been replaced by weeds that the animals don't like. So round Dori today, the desert has taken over. The forest has gone, the pasture has gone and there is nothing left but sand."

The Sahara does not advance regularly; rather, pockets of desert are formed, which spread and eventually merge to form a desert zone attached to the Sahara. In the words of Mr Yaya, "the Sahel is merging into the Sahara".

Meeting the needs of the population

The desertification of the Sahel is closely tied up with the over-exploitation in time and space of the area's natural resources. Crowding of humans and animals, coupled with the vagaries of the fragile climate, has caused considerable damage to the fragile and precarious ecosystem that has existed in the Sahel for centuries. Although stock-rearing is a very suitable activity for the region, it imposes too great a burden on the land. People congregate in certain areas, particularly during drought, and this often has disastrous consequences as far as consumption of forestry resources—hitherto the Sahel's only source of energy—is concerned. Add to this what Mr Stebler called "the heritage of the colonial past", that is to say the disruption of the traditional socio-economic management of the territory, leading to the breakdown of social structures and the conjunction of a wide range of conditions that are critical for the environment and harmful anthropological habits that have led to the disintegration of the ecological balance of the Sahel.

In the long term, the CILSS aims "to undertake a variety of activities to enable member countries to reach a situation where society and the economy are less vulnerable to climatic changes, by introducing an overall programme of food and animal production, of marketing networks, roads and other infrastructure and protecting the balance of the environment" Mr Yaya explained. The latter consists of the forest, providing wood for household purposes, pasture for the livestock and general vegetation for agricultural production. It is subject to degradation by rain and wind. These three, closely linked, elements, are top priorities for CILSS since they reflect the vital needs of the people of the Sahel.

Reafforestation and soil protection

Both Messrs. Stebler and Yaya emphasized the importance of the CILSS/Friends of the Sahel reafforestation programme, because this both contributed to containing the desert and represented a crucial factor of the way of life in the Sahel. Both agreed that the countries of the Sahel—which are as much to blame as the aid donors for negligence—have been late to realize the need for reafforestation, although they did not wait for the Nairobi conference before taking action. For them, reafforestation is an extra means of fighting desertification and must be a part of any

programme aimed at developing the Sahel's traditional activities—for which there is no other alternative in the near future.

There is an obvious reason for the failure to protect forest, pastureland and vegetation. Degradation within the various countries was irregular, the southern areas tending to be fairly free of desertification and northern areas harder hit. Furthermore, the returns on a wood plantation in the Sahel are longer and more difficult to quantify than returns on, say, a cotton plantation. This has discouraged some sources, providing aid in grant form, which preferred figures and results that were easier to check.

The role of the forests in the Sahel is not always obvious to someone from an industrialized country. Mr Stebler says that forests in the Sahel are more like park savannah, grassland with trees spread fairly regularly across it. Their beneficial effects on micro-climates make it possible to live and carry on an economic activity in the areas in question. Forests are vital to agriculture as well as forestry. The two go together. They supply wood for cooking and heating, fodder for animals and even food for humans in extreme periods of drought.

Mr Yaya says that, as far as energy is concerned, finding an alternative to wood in the Sahel would be like finding oil in Europe. "Research is being carried out on such things as solar energy and even a 10% increase in the efficiency of the traditional kind of family hearth in the Sahel would mean that 10% fewer trees would be needed to burn, and be a great victory for the area". Reafforestation and a search for alternative fuels are equal priorities in the Sahel.

The most conservative estimates suggest that 26 million m³ a year of firewood is consumed in the CILSS countries at the moment. In future, Mr Stebler says, forestry production must go up by 7 million m³. "Consumption is expected to rise by at least one million m³ in the coming years. Consumption is now excessive, forestry resources are being eroded and the current shortfall is 6 million m³. Production can be pushed up and we are optimistic about achieving the 7 million m³ increase if we are given the means of improving our system of management. We must use all sorts of techniques to do so, including experimental plantations of exotic species, but in view of the size of the problem we shall be concentrating on the proper management of those of our natural forestry resources which can develop unaided."

Firewood for sale in Upper Volta—the Sahel still depends on it for fuel



GUYAUX

Training for Sahelians, particularly herdsmen

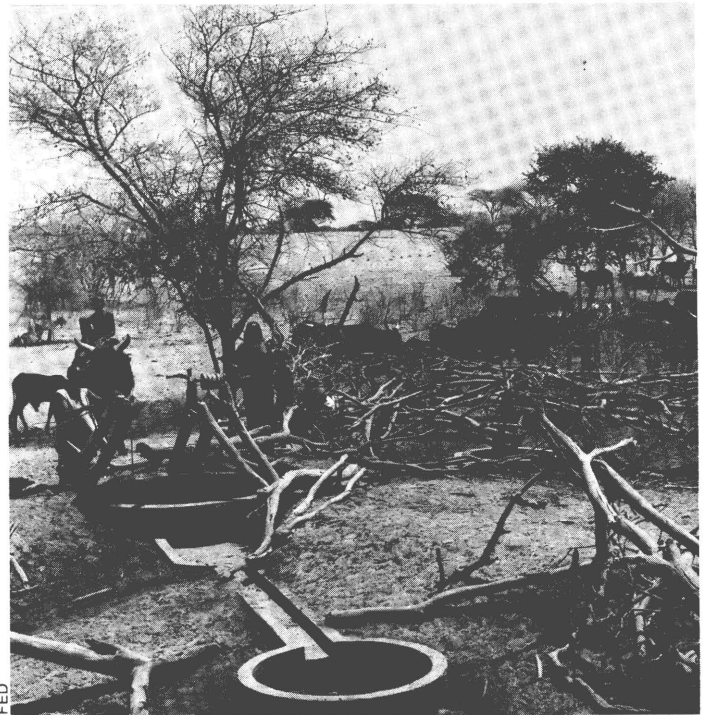
Intensive research is now going on into agricultural techniques and appropriate technologies to make the least possible demands on soil and plant cover and improve the standard of living of the population of the Sahel. But apart from studying such things as the distribution of water-holes in relation to concentrations of people and animals, the vital task, Mr Yaya stressed, is to train the people of the Sahel, particularly the herdsmen, since by felling trees and concentrating animals in small areas, they are the worst offenders as far as desertification is concerned. The people of the Sahel, one quarter of whom practise transhumance rather than genuinely nomadic methods (still an extra, fairly serious, obstacle), must be taught how to cut wood so the forest survives, where to take the animals, how long to stay without degrading the soil, and so on. A considerable task for the CILSS and one which involves coordinating and the member countries' efforts at finding out and informing their populations about what is at stake.

Another drought?

"If there really was another drought, there is no doubt that, as infrastructure and socio-economic development in the Sahel now stand, things could well be far worse than last time", Mr Yaya predicts.

Nevertheless, after the drought of 1968-74, the Sahel both attracted external aid and began to devise its own emergency scheme to limit the consequences (particularly the social

Replanting the desert



The density of the herds around the wells caused "pockets" of desertification during the drought

ones) of any further catastrophe. "There will probably be a food shortfall in some parts of the Sahel this season," said the head of the CILSS, "and this problem will have to be solved".

The vital consideration is that the aridity of the Sahel is nothing new. The Sahel has had the problem of soil degradation and drought for centuries, although there have been times when it has produced cereals for other parts of Africa. The people's faculty for adaptation must be used to halt desertification. The process must then be reversed, the population's standards of living raised and their environment preserved and improved.

Nonetheless, another drought would be a serious impediment to the CILSS/ Friends of the Sahel programme, stage one of which has already been planned and executed.

Self-sufficiency in food by the year 2000

Over the next 20 years, CILSS and the Friends of the Sahel will be combining forces to work towards a major objective—self-sufficiency in food. The anti-desertification campaign proper is an integral part of this. The survival of the very culture (as Yaya says, the Sahel is a whole way of life) of the 17 million Sahelians will largely depend on it.

Means have been provided and people made aware of the issues both in the Sahel and elsewhere. Mr Stabler, who was at the Nairobi conference, said: "The conference gave international recognition to the fact that desertification is widespread and particularly acute in the Sahel."

Like the other representatives of the Sahel, Mr Yaya is optimistic about the future of his region. "Now that everyone is aware of our problems, I firmly hope that the combined forces of the CILSS and the Friends of the Sahel will help us to find a solution." □ R.D.B.

Land resources degradation

by J.R. RIQUEIER

Soil degradation and desertification overlap. Even at the desertification conference there was some confusion as to the exact meaning of both words. Generally speaking, soil degradation can take place in any bioclimatic zone, whereas the same process occurring in arid, semi-arid and subhumid zones is referred to as desertification. J.R. Riquier, UNEP/FAO project coordinator with the Lands and Water Division of the FAO, who attended UNCOD, explains how soil degradation can prove a problem for ACP countries regardless of their bioclimatic zone.

Importance of the problem of land resources degradation

Throughout history the productivity of the land has been directly associated with the rise and fall of civilization. Historians record many instances where lands that had at one time supported thriving civilizations have been turned into barren wasteland by soil degradation. Those civilizations vanished along with the productivity of the land.

Even in the USA, the rate of soil degradation raises much concern. The average annual loss of topsoil from agricultural land is estimated at 30 t/ha/year. About 71 million ha of cropland suffer from severe water erosion and an additional 22 million ha suffer from wind erosion. An estimated annual loss in crop productivity of \$ 800 million (2 percent of farm products in 1964) results from erosion by wind or water or both.

The soil erosion problem in the developing countries is estimated to be nearly twice as severe as it is in the United States, while their increasing populations put more and more pressure on the land.

Methodology to assess land degradation

The results of land degradation are not very obvious to the observer because they are spread in space and in time. A field can be undergoing degradation under cropping whilst the field next to it may be improving under meadow. Rainfall during the period when the soil is bare may cause much erosion or none, depending on how heavy it is. For the same field, where crop rotation is adapted and climate varies from year to year, degradation is also very variable and it is difficult to evaluate the general tendency during a certain number of years.

The rate of productivity decrease is also very variable. It may be accelerated when the soil is already shallow or attain a lower but stable level when, for example, the soil is



cultivated without fertilizers. The difficulty is to measure and express land degradation in quantitative terms.

It can be tempting to assess degradation by its consequences—the decrease of productivity measured by the reduction of yield of one crop during a certain period of time, generally 10 to 25 years; the increase of area necessary to compensate for the productivity decrease; or the increase of inputs in money or energy necessary to maintain productivity at the same level. It is difficult to compare degradation from country to country because the prices of crops and fertilizers and the cost of labour are very variable.

Assessment of the effects of degradation requires certain data obtained only by experiments and difficult to generalize. The FAO has chosen to express degradation by change in soil characteristics, such as: thickness of soil loss by erosion or soil loss by ha and by year, change in the soil's electrical conductivity by salinization, change of pH (acidification), etc. The economic interpretation can be made in a second phase according to the crop, level of inputs and cost of management. So the assessment of soil degradation is based on the soil's physical characteristics and remains comparable all around the world.

Degradation types and factors

Although water erosion is the main degradation process, other types of degradation are also locally important. Six types have been distinguished:

- Water erosion: sheet, rill, gully erosion and landslide.
- Wind erosion: deflation and accumulation.
- Salinization and alkalization.
- Chemical degradation: leaching of bases and acidification, toxicity other than excess of salt or sodium.

— Physical degradation: loss of structure, sealing and crusting of topsoil, reduction of permeability, compaction at depth, decrease of aeration, limitation to rooting.

— Biological degradation: loss of organic matter, decrease in microbiological activity.

All these degradation processes lead to decreased soil productivity, sometimes transiently, often in a permanent and occasionally in an irreversible manner.

Degradation factors can be grouped into four: 1) climate; 2) soil; 3) topography; 4) human factors. The first three called natural, physiographic or physical factors are reasonably stable and the human action on these factors is weak. On the other hand, the human factor is very variable in space and time. We include in this factor land use, land management and even vegetation because it is often modified by man or likely to be modified.

Man can control soil degradation by appropriate conservation measures. Thus, he can adapt soil productivity to future population needs, within the limitations imposed by the three factors: climate, soil, topography.

Soil productivity / degradation relationships

Some relationships have been established in experiment, or measured in case studies. Soil erosion has an important impact on crop production but the effects are difficult to generalize because of the influence of such factors as crop

variety, soil nutrients, soil structure, topsoil depth, drainage temperature, moisture and pests.

Some results are available and are given here as examples: at Niangolo (Upper Volta), the increase of water erosion from 1.4 t/ha/year to 13 t/ha/year decreased the yield of millet from 729 kg/ha to 353 kg/ha. A decrease of 50 percent of productivity is very frequent in tropical zones in 5 years of continued cropping, by acidification, leaching of bases and exhaustion of nutrients by crops.

Wind or water erosion removes the upper portion of the topsoil which contains the larger part or sometimes the totality of organic matter and nutrients. Corn yields are reduced annually by an average of about 4 bushels per acre for each inch of topsoil lost from a basis of 12 inches of topsoil or less; yields of oats are reduced by 2.4 bushels, wheat 1.6, soyabean 2.6. Assuming that there is a reduction of 4 bushels per acre in yield per inch of topsoil lost and that about 20 tons of topsoil per acre are lost annually in continuous corn production, then the annual per acre reduction in yield would be about $\frac{1}{2}$ bushel of corn. When the soil profile is more homogeneous, such as chernozem, the decrease of yield by removal of the upper portion of topsoil is less important.

Erosion is often combined with a high run-off and a low water availability, mainly in dry regions. The reduction of crop productivity due to water stress may be estimated from 10 to 25 percent. When erosion attains the rock or even an unconsolidated parent material the productivity can be nil.

Evaluating soil degradation is a difficult problem (dried up river valley in Ethiopia)



Inputs / soil degradation relationships and indirect losses

In the USA, calculations based on soil erosion data suggest that more than 50 million tons of plant nutrients (nitrogen, phosphorus, potassium) are lost annually from cropland soils. Increased quantities of fertilizers have to be applied to offset the decline in productivity potential.

Some soil conservation practices are also very costly, mainly those using mechanical control measures such as terracing, and generally the short-term costs are greater than the short-term return.

Others are less costly. Contour planting reduces the erosion but results in a 5 to 7 percent increase in both farming time and field use.

The use of livestock manure can substantially reduce erosion in corn cropland. An application of 16 tons of manure on a slope of 9 percent reduces the annual soil erosion from 54 t/ha to 11 t/ha.

On the other hand, in shifting cultivation a fallow period can restore productivity, sometimes to its former level without expense but with no harvest during 3 to 10 years.

Indirect losses are often very important. Sedimentation reduces the useful life of reservoirs, leads to eutrophication of lakes, and causes flood damage to other crops. These losses can be assessed in particular cases.

Misuse and mismanagement by men

As has already been said, soil degradation is caused by physical environmental factors but also by misuse and mismanagement of soil by men. Many soils, mainly in arid regions, are overcultivated, overgrazed and finally returned to wasteland. Overcultivation leads to exhaustion of the soil if there is not at the same time compensation of exported nutrients by fertilizers and manure or by a sufficiently long period of fallow.

Mechanization is also a cause of physical degradation by loosening soil surfaces and removing vegetal cover which protects soil from water and wind erosion. Mechanization increases soil compaction and forms ploughing sole which facilitates waterlogging or removal of upper topsoil by erosion.

Overgrazing is a frequent cause of degradation. The animal pressure destroys the vegetal cover protecting soil and livestock stamping, chiefly during the wet season, compacts soil.

Irrigation with excess of water on insufficiently permeable soil leads to waterlogging, lack of aeration, soil compaction and in arid regions to salinization.

Normally in any situation, man has evolved, through centuries of experience and recently through scientific research, practices which interact with the environment to more or less maintain a stable system of production. But for over a century, various aspects of modernization, and economic and demographic expansion, have brought about changes which have increased population pressure on the

land and disrupted the balance between production and land conservation.

Predictions

At present the trends are evident(1). There is increasing population density and pressure on agricultural land, consequent increase in area of cultivated land, sometimes spreading to marginal areas unsuitable for farming with traditional techniques which will be submitted to strong degradation.

There is overgrazing resulting from increased livestock population, stocking rates for traditional nomadic herding and poor range management.

There are widespread and shorter cycles of deforestation resulting from shortening of periods of fallow and fuelwood needs.

The migration of people to areas where their traditional methods of agricultural production are unsuitable to the existing environmental conditions.

The rate of development of agricultural techniques and organization of space is not keeping pace with the increased rate of change from extensive farming techniques to more intensive systems.

There is the general economic development and improvement of means of communication, which bring consumers closer to markets and will increase the pace of commercialization of agriculture and thus the pressure of men on land, and there is increasing use of mechanical cultivation and large-scale farming.

All this leads to increased soil degradation and conservation measures have to be taken to maintain production at its present level. These require money and energy or the extension of cropping to marginal areas, which is not a good solution for the future because the preservation of these lands will also be very costly.

In conclusion, assessment of soil degradation is necessary to estimate the reduction in productivity and the increase of money or energy to maintain the production level.

Progress in the knowledge of soil degradation is subject to the choice of criteria to survey soil degradation in the field; the assessment of the intensity of degradation including factors such as climate, topography, soil and human influence; the choice of land use and management more suitable to the environmental conditions and the evaluation of areas already affected with a view to their reclamation and of areas likely to be affected by degradation with a view to their protection.

Unfortunately, this assessment is now mainly qualitative and a great effort has to be made to make it quantitative.

Soil degradation assessment is vital if our land resources and environment are to be protected for future generations. □

(1) See "Erosion hazards and farming systems in West Africa", by B.N. Okigbo. Workshop on soil conservation and management in the humid tropics, Ibadan.

Physical and biological processes that cause desertification

| FACTOR | PROBLEMS | CAUSES | SOLUTIONS |
|---------|--------------------------------------|---|---|
| Water | Scarcity | Low precipitation Poor and erratic distribution of rainfall Mismanagement of irrigation water Over-exploitation of groundwater and surface reservoirs Uncontrolled water losses by evaporation | Improved water supplies, water conservation |
| | Mismanagement in dryland agriculture | Poor and erratic rainfall distribution Uncontrolled runoff | Runoff management, plant management, soil conservation |
| | Irrigation mismanagement | Unknown consumptive use Drainage system deficiency Deficient land levelling Inadequate water distribution Imprecise water measurements Poor irrigation methods | Improved irrigation methods, drainage systems, salinity control, dependable water supplies |
| | Floods | Poor and erratic rainfall distribution Uncontrolled runoff | Flood control |
| Soil | Erosion (by water and wind) | Reduction of vegetation cover Uncontrolled runoff Sedimentation and silting Soil structure degradation Improper tillage practices Strong winds Soil profile depth diminishment Loss of fertile surface soil Reduction of water holding capacity | Soil conservation, soil moisture conservation, plant establishment, plant conservation, fertilization |
| | Soil salinity/waterlogging | Canal seepage Waterlogging Poor water quality Deficient leaching practices Irrigation mismanagement Deficient drainage systems Floods | Irrigation water salinity control, dependable water supplies Soil salinity control, drainage, plant establishment, plant conservation, runoff management, canal lining |
| Plants | Reduction in vegetative productivity | Land clearance Plant mismanagement Over-cultivation Overgrazing Invasion of undesirable plant species Uncontrolled wood gathering Forest over-cutting Fire (uncontrolled burning) Drought | Irrigation, runoff management, water supplies, soil conservation, plant establishment, plant management |
| Animals | Reduction in animal productivity | Water scarcity Deficient fodder crops and food reserves Health and nutrition Overpopulation | Water supplies, water conservation, range management, livestock management, soil conservation, plant productivity, improved breeds, plant conservation, control of pests, game ranching |
| Energy | Scarcity and misuse of fuel | Uncontrolled wood gathering Misuse of the available energy | Afforestation, solar energy, wind energy, energy conservation, biogas |

(1) Reproduced from UNCOD background document "Technology and desertification" (A/CONF. 74/6)

The herdsmen of the Sahel

by B. PEYRE de FABREGUES(*)

- Desertification of the Sahel is due to a combination of climatic factors and the mismanagement of pasture.
- Overall, the process is not irreversible. Better land management, which some countries have already proposed, should prevent any disasters of the magnitude of the recent drought.

Desertification, as observed in the Sahel over the last decade, is the result both of a climatic change and of the combined effect on the natural environment of men and animals, bringing about a virtually irreversible reduction in plant cover.

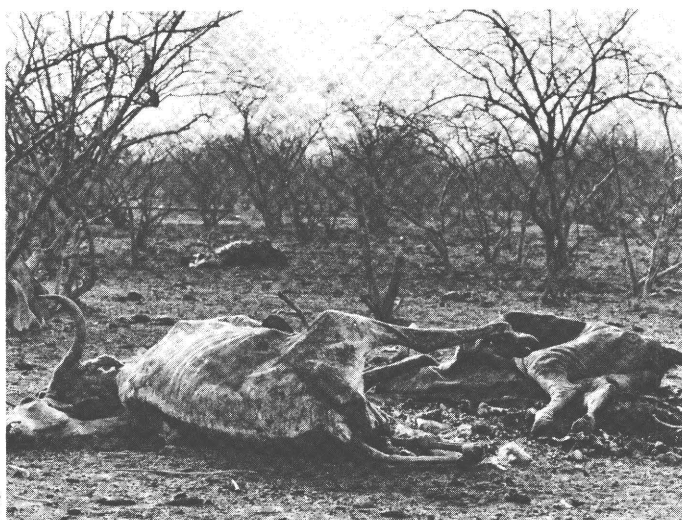
Different factors preponderate in different areas. In the Sahel/Sudan, the spiky grass pastureland of Eguez in Chad had all the symptoms of desertification in 1974, although it was not being used for grazing, the farmers having been moved elsewhere for political reasons.

In "inhabited" regions, a combination of climatic and human factors has created new desert landscapes often miles from traditional desert areas. This has even occurred in relatively humid areas in tropical Africa. However, we shall confine our attentions to the Sahel, the area south of the Sahara, where conditions are particularly hard (less than 350 - 500 mm rainfall p.a. concentrated in a rainy season of less than three months, high temperatures, extreme aridity and poor, sandy soil), resulting in a precarious ecological balance.

In these conditions, desertification is the result of a fairly lengthy climatic accident which suddenly revealed the consequence of overexploiting limited resources, of overgrazing, extensive crop-farming, woodcutting, brush fires, of the attendant loss of water and deterioration of the soil by both wind and water. All these combine to increase aridity.

Stripped of its plant cover, the earth is at the mercy of bad weather. Biological action and fertility regress and disappear entirely and the slightest climatic upset has far-reaching effects. The ground no longer retains water, life decreases, erosion gets worse and the process can easily become irreversible; one bad season is enough to wipe out plant life, but it takes years for it to be replaced.

But overexploitation of the vegetation by man and his animals is the direct result of the population explosion in the first place. The population of the Sahel has doubled over the last 30 years. With the gradually changing way of life, this increase has been accompanied by a tendency to settle around village-type centres in order to have access to social (health, educational and commercial) and administrative facilities.



Drought victims

Since the Sahel has an essentially rural economy, the increasing number of mouths to feed inevitably leads to a corresponding increase in agriculture and livestock to produce milk for the nomadic cattle-farmers. Livestock in the Sahel would appear to have doubled between 1955 and 1970.

Effects of the drought on livestock in the Sahel

The main effect was, naturally, a sharp drop in numbers. In the Sahel regions of five countries (Chad, Mali, Mauritania, Niger and Senegal), covering a total area of 2099000 km², estimated total livestock decreased from 14509000 in 1970 to 8461000 head in 1973/74, a 40% loss.

However, the five countries were affected differently. In addition to the more or less complete disappearance of the pastureland, livestock were affected by other factors: some animals had to be slaughtered or sold for slaughter; female animals became less fertile; some herds were moved, sometimes for good, to other, less inhospitable regions, occasionally in other countries. In some cases, it was the farmer himself who organized the move and in others the cattle were taken elsewhere after being sold for money to buy food. The farmer's attitude usually depends on his ethnic origin, which affects his migratory possibilities. In Niger, for example, the Peuls were able to migrate south with their herds where there were structures to receive them, whereas the Tuaregs had to sell their cattle to survive, being unable to leave their traditional homelands which were very badly affected by the drought. Their losses were far more disastrous than those of the Peuls.

So the drought has often caused disastrous losses for the cattle-farmers.

However, this drama is not without its positive side, particularly as far as the protection and regeneration of the natural environment are concerned. For example, livestock density dropped, relative to the decrease, from one head of cattle per 14.5 ha in 1970 to one per 25 ha in 1973/74. Had the right administrative and social structures existed, it might have been possible to turn this situation to good use to help (and even organize) the regeneration of the vegetation in the Sahel.

(*) Agropastoral specialist at the French Institute of Stock-raising and Veterinary Medicine (IEMVT).

Rapid livestock reconstitution plans should then have been formulated on the basis of agricultural and pastoral factors. This would have ensured a balance between number of livestock and available grazing.

There is nothing startling in pointing out that the balance between productivity and exploitation in the Sahel was already well on the way to being upset before the drought occurred. The accident of climate only served to reveal drastically an underlying trend of some years' standing.

The drought obviously had dramatic consequences for the Sahelian livestock and often for the national economies as well. But it served as a reminder that nature should be treated with respect.

The pastoral way of life in the Sahel is now returning to normal. Some countries have already almost brought their livestock back up to former levels, often by keeping cattle that took shelter there during the drought and using external aid to reconstitute their herds. But will the same mistakes be made?

And for how long will the natural environment, all the more vulnerable for the effects of the drought, retain the capacity of regeneration? It is difficult to say, but it should perhaps be expected that regeneration from too low a level will involve increasingly long periods of evolution and never regain the previous level if the factors of exploitation and climatic difficulties persist.

The system of stock-rearing—both cause and victim of desertification

The crisis provoked by the drought in the Sahel is the result, above all, of excessive population density and, consequently, of excessive livestock density too, since milk is a vital necessity. The increase in both humans and animals was made possible by the vast hydraulic development and animal health schemes (of which all the implications were not fully foreseen) which began in the '50s.

Furthermore, climatically speaking, the annual rainfall in the 10 years prior to 1968 was high, causing plant life to flourish and natural forage production to expand, thereby encouraging the overdevelopment of herds.

Special political circumstances and the fact that pastoral techniques were ill-adapted to the situation led to anarchy in the use of pastureland, typified by the overexploitation of natural resources, leading inevitably to deterioration. The ultimate reason for this was the absence of any regulations to protect pastoral resources and a failure to apply such regulations where they did exist.

Of the essential causes of desertification, the permanent use of certain pasturelands warrants particular emphasis. This type of overexploitation is disastrous for the grass which, consisting mainly of annual plants, can no longer produce enough seed to ensure self-replacement. Similarly, perennial plants (trees and bushes) fade and die if they have continually to compensate for cropping.

This situation may be the result of groups of people (with the herds that are vital to their economic and physical survival) settling around permanent water-holes or to pastures being used on a relay basis.

Although the deterioration of the Sahel due to settlement is obvious, even to the tourist, and every pole of attraction is surrounded by a ring of desert at astonishing speed, deterioration due to the relay use of pastureland is more pernicious and perhaps even more of a danger.

At worst, at least as long as only a small percentage of the population settles permanently, the rings of desert around each settlement will only involve a small part of the territory. Even the bigger ones, like Tchén Tabarden in Niger and Mao in Chad, only account for a minimal percentage of potential pastureland.

Relay use of land (Gallais, 1976) is, on the other hand, the continuous use of the same natural pasture by a series of different groups of farmers. The hierarchization of the right to use land, bound by tradition and often reflecting the

Something to drink, nothing to eat—the cattle trample every green plant into the ground



GUYAUX

social hierarchy of the various tribes, means that some cattle-farmers use what, traditionally, others partly used or wished to protect the previous season. This method is very harmful to the vegetation, particularly during the rains in the Sahel.

In Niger, for example, the shortage of rainy-season water-holes in the vast dunes of Sud Tamesna and the transhumance farming methods whereby cattle were moved to the salt pastures of the north, enabled the Tuaregs, the traditional occupants of the region, to leave the dry season pastures to recover during the rainy season. The vegetation could thus thrive normally, reseed and perpetuate itself.

However, since the '50s, the government has set up new, permanent, free water points (but failed to appoint any authority to regulate their use). This has attracted many cattle-farmers to the region and rapidly led to the pastures being exploited all the year round. The situation was aggravated by the reaction of the first occupants who, in order to defend their pastoral reserves for the dry season, were often forced to stay put with their herds throughout the year.

Further examples of relay utilization (in Upper Volta particularly) could be given to show that more than two successive groups may use the pastures and that this form of overexploitation often involves extensive areas. A series of cattle-farmers will bring about overexploitation of the natural environment, what is left by some being used by their successors. This is a great danger to plant life, which can be totally eliminated.

In addition to large-scale degradation of this kind, there are other, less important factors which contribute to the acceleration of the desertification process:

— Goats sometimes crop every branch right to the trunk, creating damage from which bushes never recover.

— Some farmers who plant millet in the Sahel are aware of the hazards and expect nothing but wretchedly low yields. They therefore clear their fields of all vegetation well before the rains, exposing the soil to intense erosion by the winds and the downpours of the first storms. Furthermore, they are careful to choose light, very sandy soil where there is little runoff and work is kept to a minimum. Vast areas are cleared in this way. Such fields will sometimes be fertilized by penning cattle (which are on the way to other pastures in the north) in them at night. But what remains after the ground has been trampled and the wind has blown?

— Brush fires not only destroy all forage until the next rains and a number of fertilizing elements, but also expose the soil to the sterilizing heat of the sun and the effects of erosion.

This is not a complete list of destructive factors. Clearly, Sahel pastureland is easily destroyed and sometimes disappears entirely. This is why the cattle-farmer in the Sahel, lacking the courage to anticipate the probable development of forage resources and aware of all the aspects of this important question, is the victim of his own methods of exploitation and forced to emigrate or change his occupation.

Pastoral improvements and rehabilitation of livestock

The essential way of protecting the factors of production in the Sahel is to ensure a proper balance between number of livestock and useful plant cover. The maximum number of livestock in each region or pastoral unit should be defined and controlled.

Such projects will only be successful if the stock-farmers themselves participate actively. There will in any case be considerable problems in extending them beyond a one-off basis.

Optimum numbers of livestock will vary with the climatic conditions and will therefore need to be subject to annual review, after the rains. Although such a project could partly be realized (particularly by the use of methods based on the correlation between the amount and breakdown of rainfall and the primary annual productivity of the grass), in view of the vast human and material resources required, it is hardly a realistic undertaking. The practical solution could be to keep pastureland permanently slightly understocked.

This would be beneficial in that certain sections of pastureland, representing temporary surplus production if climatic conditions have been favourable over the year, could be kept in reserve. They could be the centres of plant regeneration for the surrounding areas. In poor years, on the other hand, these reserves could provide emergency grazing at the end of the dry season.

A model such as this involves keeping to a specific number of livestock in each pastoral unit and following a precise method of exploitation. It therefore requires that stretches of pastureland be clearly defined and allocated to specific herds—i.e. to the particular individuals or groups working those herds.

A plausible plan for pastoral improvements in the Sahel, aiming to re-establish stock-rearing and to integrate it successfully into the ecosystem, cannot avoid a certain amount of reorganization of land distribution and use so that the user is responsible for the natural capital he exploits. Land would be allocated in due legal form (to be defined), respecting the traditions of the herdsmen.

The division of pastureland into pastoral units is currently being tested in Chad (Batha) and Niger, and other Sahel countries are planning to introduce a similar system. The main difficulties arise from providing temporary grazing rights over certain stretches of land in the event of local climatic accidents, particularly when the groups of people concerned have little in common.

These pastoral units are always large tracts of land, within which the seasonal movements of herds will be maintained, in the light of the rational use of pasture and water resources. There is no question of fixing herds in one spot. The mobility of the cattle-farmers in the Sahel must be preserved since it is the only means of handling the variables (climate, brush fires, etc.) that determine the amount of forage. Units may be allocated to groups of people united under chiefs and keeping herds that are compatible with the natural resources of the area in question and large enough to provide them with a decent income. They will need to be fairly large to warrant the installation of reasonable extension services until the group can produce supervisors of its own.

The boundaries of the territory allocated can (after various adjustments in the light of the milieu, average forage potential, neighbours' needs, etc.) be based on those of the region in which the people in question used to wander (cf. Barral). This territory will include areas of pastureland which can meet forage requirements in all seasons. Improved plant and animal productivity can then be achieved by organizing the area and exploiting the livestock in the light of these considerations:



Moving on to new pastures—if the grass has grown again after the overgrazing in the last rainy season (Goundam, Upper Volta)

— The unit of exploitation will be defined according to the combination of pastureland and water-holes. It will produce forage that can be used at a specific time of year, cater for a given number of livestock (rations/period) and have its own obligatory cycle of exploitation and fallow periods.

— The mobility of the stock-farmers will be maintained. Transhumance methods within the territory will be defined in the light of the requirements of the cattle and of environmental potential, with the help of the farmers to whom the area has been attributed. They will be revised whenever necessary. However, nomadism and settlement, as a result, will have to be excluded as being out of place in such a system. The only valid method of developing the Sahel pasturelands is extensive, mobile rearing. It must therefore be properly organized, since it is the only means of correctly exploiting the natural pastoral potential and the only way improvements can be considered.

Within this framework, stock-farmers who jointly agree to be masters on their own land and who are aware of both the risks of deterioration and the improvements that depend on their management of it, must respect:

- the regulation dealing with numbers at water-points on the basis of seasonal productivity in the areas served;
- the boundaries of reserve areas and plans for reviewing them;
- prohibition of total denudation of trees and authorized methods and periods for the pruning of some types of ligneous forage plants;
- the limitation of burning and, if possible, the control of accidental fires.

Curiously enough, these were the traditional unwritten rules of the Sahel herdsmen. The modern anarchic methods of exploitation are relatively recent and it is reasonable to hope that the return to old methods which regulating the use of the Sahel pasturelands would imply would make it all the easier to improve the way of life of the rural population. Unless the people apply the rules, any attempt to improve

their environment will fail. This is the vital condition for success, since it would be impossible to supervise rules over a wide area without the consent of the people concerned.

Such thoroughgoing aims can only be achieved with complete and effective extension services, that is to say by men with the right technical knowledge, who themselves come from the milieu in which they work.

Technicians must therefore be trained, as soon as possible, for the tasks ahead. They must be able to perform veterinary duties as well as organize agricultural exploitation and animal production.

For example, by encouraging Sahelian stock-farmers to specialize and organizing the rapid disposal of certain types of animals, for the benefit of the farmer, it appears possible to improve animal productivity and maintain stock at a level compatible with forage resources.

In conclusion, the spontaneous destruction of vegetation that desertification implies results from a combination of climatic influence and excessive livestock pressure on the natural environment.

The Sahelian stock-farmer is both cause and victim, but, in arid and semi-arid regions where agriculture is unproductive, the exploitation of natural, extensive pastureland by herbivorous animals remains the only possible method of development.

Mobile, traditional rearing has a remarkable faculty of transforming the spontaneous vegetation of the Sahel into products that man can use and without it most of the region's resources would remain unexploited. The method must not, therefore, be condemned. It is vital, but it must be reorganized. To perpetuate it at the same time as preserving the environment, the methods used must evolve rapidly. With the constant monitoring of the environmental factors which modern analytical techniques permit, it should be possible to avoid further disasters, to raise the standards of living of the stock-farmers and to maintain a population in the Sahel. □

NIGER

The Agadez and Azawak regions

This synthesis of a report prepared for the Nairobi conference summarizes one of several case studies of desertification, in this case of an arid and semi-arid area with hot-season rainfall. It was prepared by the UNDP with the help of the Institute of Human Research at Niamey University and carried out by UNESCO, the FAO and the World Meteorological Organization (WMO).

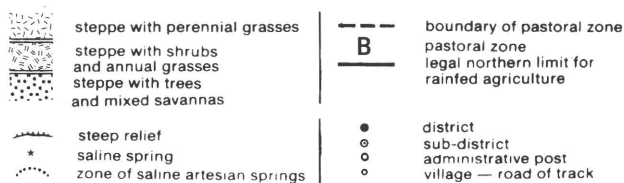
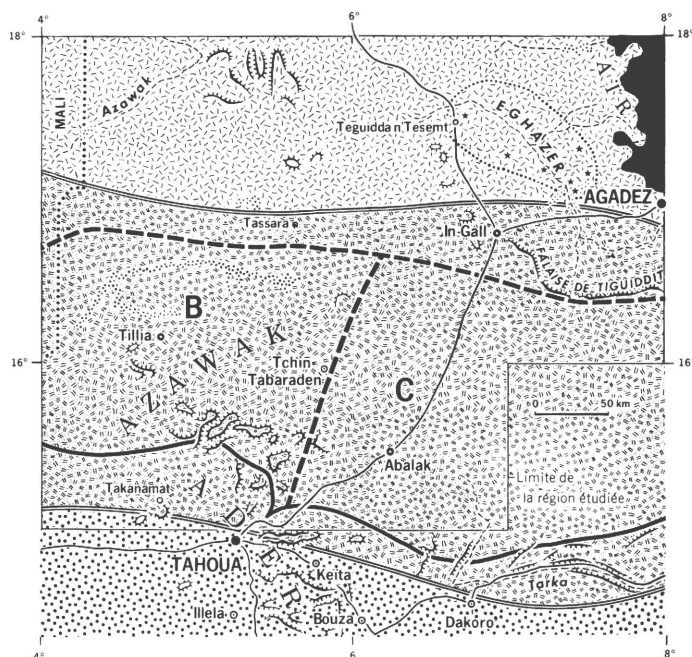
An area of extensive nomadic pastoralism

This study covers a large area — 100 000 sq kilometres, or 10 per cent of Niger. It extends between 15° and 18°N, from the border of the Sahara across the drier part of the Sahelian zone. Annual rainfall ranges from 100 to 350 mm. The rain comes in 2-3 summer months and is highly variable from year to year, from place to place, and in its occurrence within the rainy season. It is a region of sandy plains comprising fixed dunes or low sandstone plateaux, traversed by shallow 'dead valleys' which open out in the north of the area.

The area is one of extensive nomadic pastoralism, with rain-fed cropping possible only towards the southern margin. It supports a population of 115 000, mainly Tuareg with an increasing number of Peuls in the south. Among the numerous livestock, camels predominate in the north and cattle increasingly in the south, and sheep and goats are distributed throughout the area. Before the 1968-1973 drought, livestock numbers were estimated as 200 000 camels, 420 000 cattle, 230 000 sheep and 526 000 goats.

These livestock numbers, which were within the potential carrying capacity of the native pastures, were maintained by important seasonal movements:

- in the north of the area, localized movements into annual pastures, returning to wells in the dry season;
- elsewhere, a large-scale nomadism, northwards during the rainy season to the annual pastures and temporary water bodies of the northern plains. These pastures are very productive (1-2 cattle equivalents per ha) during the wet season, and become useless hay during the dry season. There was a movement back south at the onset of the dry season to the less productive but durable perennial pastures (including tree and shrub layers) of lower productivity (1 cattle equivalent to 10 ha) and to permanent wells. These movements involved local nomads as well others from outside the region, and also agriculturalists from further south.



Before the drought

Important socio-economic changes had occurred in the region before the drought, accelerated by above-average rainfall in the preceding decade. These included.

- a breakdown in control by the Tuareg society over the movements of pastoralists and grazing animals;
- an increase in population (annual growth rates 2-3 per cent) in nomadic societies and even more in agricultural villages to the south;
- an increase in stock numbers due to improved veterinary services and to the entry of other nomads into the area, no longer resisted by the Tuaregs. These developments were accompanied by a relative increase in cattle;
- encroachment northwards of agriculture and related settlement, despite attempts to legislate against it; the limit of agriculture was placed near the south boundary of the area, but cropping had extended more than 100 km north of it;
- development, after 1900, of deep wells and bores equipped with motor pumps, particularly in sandstone plateau areas lacking shallow groundwater.

The effects of the drought

The area received the full impact of the Sahelian drought, and the northern part received less than half the mean

annual rainfall in almost all years between 1968 and 1973. The effects on pastures and on stock losses were cumulative, and reached disaster proportions by 1972, when stock losses in the northern areas exceeded 80 per cent, particularly among cattle and sheep.

The reasons for the disaster included:

- cumulative effect of drought stress on pastures;
- heavy localized grazing pressure encouraged by the development of centralized watering points. Strategies envisaged to restrict grazing around these points did not work. In effect, the grazing loads were 2-3 times the envisaged 5000 head because of the practice of not watering daily, and it proved impossible to refuse water to herdsmen in an effort to restrict grazing pressure or to reserve certain pastures. The cumulative effects of trampling and of grazing during the wet season (before seed-set) resulted in devastated areas extending 10-12 km around watering points, beyond the grazing range of cattle under stress. It is noted that it was the failure of pastures, not of water, that led to deaths of stock; the system failed through lack of attention to wet-season management (deferred grazing) rather than through lack of provision for drinking during the dry season;
- lack of support from the adjacent agricultural areas, which were suffering crop failures at the same time, particularly where agriculture had spread north beyond recommended climatic limits; also, extension of cash crops had diminished possibilities for complementary grazing arrangements.

The result was a mass exodus of pastoralists southwards, after losing or selling their stock. Those most traditionally associated with the region, the Tuaregs, tended to move too late, although they found relief food in camps and settlements.

After the drought

Developments among the survivors since the drought, with good rains in 1974/75, include:

- recovery of stock numbers, especially of small stock, with the assistance of government loans;
- increasing tendency for the growth of nucleated settlements around watering points. In the south this is linked with an expansion of rain-fed cultivation, spreading north and being officially encouraged vis-à-vis pastoralism; in the north it is associated with the development of subsistence agriculture on small irrigated plots around watering points, particularly among ex-nomads who have lost stock. This development is restricted by the yield of watering points and by available waterings.

To some extent these late developments embody some of the risk elements of the livelihood system before the drought, notably the limitations imposed on pastoralism and the encouragement of intensified land use around watering points.

Processes and causes of desertification

Changes in the density and composition of native pastures have resulted generally from drought stress, although varying according to topography, soil texture and vegeta-

tion, plus the localized impact of grazing pressures where stock have been abnormally concentrated for longer-than-average periods during drought, notably near watering points and in areas of favoured wet-season pastures. In consequence, desertification is a phenomenon of localized deterioration in a mosaic patchwork, rather than a linear advance of the desert margin.

There has been widespread death of trees, particularly of shallow-rooting species, in drier settings such as dune crests and sandy plateaux (deaths of up to 50 per cent of *Acacia* and *Commiphora* spp.). Losses were highest where stock were watered or sought shade, for trampling can damage root systems fatally on sandy soils. There has been even more widespread death of shrubs, and some invasion by other shrubs of limited pastoral value (notably *Calotropis procera*) into areas of increased run-on and diminished herbaceous cover.

In the grass layers, desertification is evident in

- a decline in dry-matter production;
- a relative decline in the frequency of palatable species and of perennials;
- an increase in ephemerals, particularly on sandy soils, with consequent diminution in durability of pastures;
- diminution of the seed store.

Related localized effects on soils include:

- sealing of soils, particularly of medium-textured soils, through trampling by stock near watering-points and in favoured wet-season pastures, such as margins of ephemeral ponds. Crusting results in deterioration of soil-moisture regimes, death of perennial plants, and poor germination of annuals;
- mobilization of sand on crests of formerly stable dunes.

Before the drought, observations had suggested that the pastoral system, although causing seasonal and localized pressures on pastures, did not lead to irreversible or qualitative changes. The drought effects were reinforced by

- increased human population and stock numbers (population growth *in situ*, plus movements into the area);
- relative increase in cattle numbers;
- increased stock concentrations around newly established large watering points.

These concentrations resulted in grazing and browsing *before* seed-drop, reducing the powers of recovery of the native pastures.

Lessons learned

The Sahelian drought of 1968-73 was not unprecedented; it can be regarded as an event likely to occur once or twice in a lifetime. Future planning should recognize this.

Mean annual rainfall data are inadequate as a basis for estimates of risk and potential, because of large interannual variations, spatial variations, and variations in the distribution of rains within the season. Estimates of the probability of occurrence of pasture growth are only feasible on more detailed (monthly) figures, hopefully from a closer network of meteorological stations.

Patterns of desertification tend to be localized rather than a simple linear advance of the desert margin. This calls for survey and understanding of topo-edaphic differences and of patterns of land use pressure in assessing, predicting and countering the progress of desertification.

The case study shows that the traditional system of nomadic pastoralism embodied adaptations that gave it a resistance to drought stress. Coping strategies included:

- low overall stocking rates;
- diversity of animals;
- traditional control over rights to water and pastures;
- exchange relationships with agricultural societies.

Many of these safeguards had broken down before the drought; for example, other nomadic groups had entered the area, and small wells had been supplemented by large watering-points. The years of above-average rainfall before the drought had allowed a dangerous increase in livestock numbers and undue extension of rain-fed cropping in the south. The case study therefore illustrates the importance of socio-economic factors linked with physical causes, and the consequences of developments before the drought.

The case study illustrates the need for a systematic evaluation of the problems of desertification in Niger. Little is known in a satisfactory degree concerning the present economic and social status of the populations affected, devastation of the pastures, present numbers of stock and their grazing impact; nor have the environments shown to control patterns of desertification been mapped.

The need for socio-economic policies

The study illustrates the need for planned development, in which rangeland management incorporates a sound evaluation of pasture capacity and a well-integrated system of water supplies, and in which potentially conflicting requirements of pastoral and agricultural communities are adjusted.

There is no evidence of machinery for instruction in sound land-use practices among local land-users. This is needed, for example, in demonstration projects.

The case study shows that the drought has had fundamental consequences for the population of the area, including a tendency for former pastoralists to group into settlements. This suggests a need for demographic policies to ensure that such regroupings are economically feasible, socially successful and environmentally harmless. Opportunity should be taken to introduce health and welfare services.

The case study illustrates the need for socio-economic policies to influence land use, including changes in ownership of pastures and water rights, marketing schemes to stabilize and strengthen the local pastoral industry, and the development of transport links to support such activities.

The case study illustrates the need for a realistic assessment of the carrying capacity of the rangelands, bearing in mind the probably recurrence of drought stress and the localized impact of stocking around watering points. There is need to appreciate the phenology of the native pastures in

policies of deferred or rotational grazing and in the establishment of grazing reserves.

It points to the importance of tree and shrub layers in the native pastures, and justifies attention to the planting of trees and shrubs for browsing and shade and, in reserves, for firewood. It also illustrates the need for control of stock numbers. This might be accomplished through the establishment of market outlets, and in the development of the rangelands as stock-breeding areas in stratified regional management plans, as suggested in the SOLAR feasibility study. This would also bring with it an incentive for livestock improvement.

A sound economic basis would provide the best protection of the pastoral system against encroachment by agriculture.

The future of pastoralism

The case study illustrates the vulnerability of dry-land farming systems that have extended beyond the advisable climatic range, and that have neglected subsistence and livestock components in an undue development of cash cropping. The study also indicates that the harmful consequences of failure in the agriculture sector can extend to dependent livelihood systems. The future of extensive pastoralism in Niger is therefore bound up with sound rain-fed farming practices.

In addition to revegetation related with pasture improvement, the case study suggests that the recent growth of nucleated settlements has increased the need for tree planting and for the establishment of reserves around settlements, to supply fuel and to counter desertification. The local role of a suggested sub-Saharan 'green belt' should be examined in this regard. Alternative fuel supplies need to be explored.

Two aspects of water-development are suggested by the case study:

- need for a wider network of small watering-points, to spread grazing loads and to bring pastures more effectively into use;
- development of larger point supplies to support settlements, notably through production of subsistence and forage crops under irrigation in the north of the area.

The suffering and socio-economic upheaval of the last years of the Sahelian drought might have been diminished in the case study area, through:

- emergency food supplies;
- fodder reserves, to keep breeding nuclei of herds alive;
- reserve grazing areas.

The study indicates the need for:

- better understanding of local conditions;
- extension services to instruct land-users in improved methods;
- economic incentives to reinforce an acceptable system of controls of stock, pastures and water resources. □

SUDAN

\$26 m to halt the desert

In only a matter of months after the end of the desertification conference in Nairobi, the Sudan is ready to put into action a programme to halt the desert. An ambitious \$26 m initial three year campaign, known as the "Desert Encroachment Control and Rehabilitation Programme" (DECARP) is designed to curb the advance of the desert in the arid and semi-arid parts of Northern and Western Sudan. Some \$15 m of this sum must come from foreign sources.

In view of the ambitious objectives of the economic and social development plan (1977/78-1982/83), which are essentially based on the sustained development of the potentially important agricultural sector, the programme to halt and reclaim the desert is a vital new initiative.

Rural overexploitation and encroaching deserts⁽¹⁾

The Sudanese economy is predominantly agricultural (including livestock production, forestry and fishing), which altogether contribute to about 40% of G.D.P. The principal exports are cotton, oil seeds, vegetable oil, gum, oil seed cakes, livestock, hides and skins and sorghum. Cotton is the main export commodity, followed by oil seeds. Sudan is the world's largest producer of gum Arabic.

Sudan's arid and semi-arid ecology is mainly determined by the total amount and distribution of rainfall and to a more limited extent by soil type, topography and elevation. Rainfall is unpredictable, highly variable and extended periods of drought are more the rule than the exception. In other words, rainfall fluctuates and because of this the ecological balance between climatic conditions, vegetation, animal life and soil biota is precarious and any land misuse pressures will upset it. The damage may be irreversible with severe and continued misuse, which has been the case in Sudan's marginal lands.

Desert encroachment in the Sudan is a man made phenomenon caused by such land misuse pressures as overgrazing, irrational cultivation, wood cutting and deforestation, uprooting shrubs for fuel, lowering of water tables due to increased water use and burning of grasslands, forests and shrublands.

Cultivation in marginal areas is especially dangerous, and perhaps the main cause of desertification. When dry years

(1) From Sudan's desert encroachment control and rehabilitation programme — Khartoum, Sudan 1976.

follow a year of rainfall, ploughed soil is at the mercy of the winds and waters. The fine clays and silts are carried away as dust or silt, and the sand drifts into dunes.

While some overgrazing has no doubt occurred in the Sudan for centuries, it has only become widescale and acute during the past few decades. In Kordofan, the livestock population increased nearly fourfold from 1957 to 1966 and livestock numbers continue to increase regardless of the rangeland's ability to feed them. Overgrazing has broken down the dynamic equilibrium that once existed between livestock and the natural grazing resources causing deserts or rangelands dominated by ephemeral annuals.

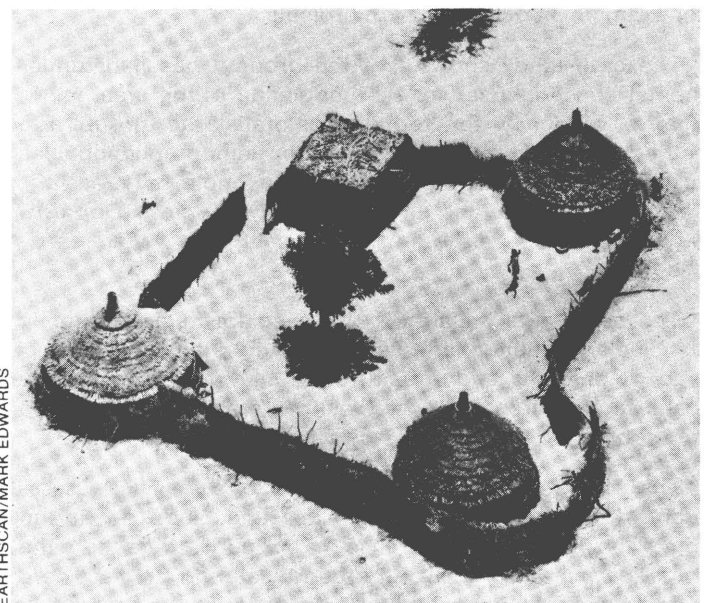
The cutting of wood and uprooting of shrubs by pastoralists and cultivators is also a major cause of desert encroachment. Vegetation is harvested for feed, to build homes and enclosures for animals, charcoal making and for fuel. It has been estimated that the nomads uproot a minimum of 548 million acacia shrubs per year just for cooking.

Fire, which destroys both forage and environmental protecting species, also contributes to desert encroachment. In many cases, burning is intentional with the idea that it increases grass palatability and in others, it is accidental in that fires used for clearing land for cultivation often escape. Overpopulation and overcultivation also cause the lowering of water tables which is a critical factor in respect to desert encroachment.

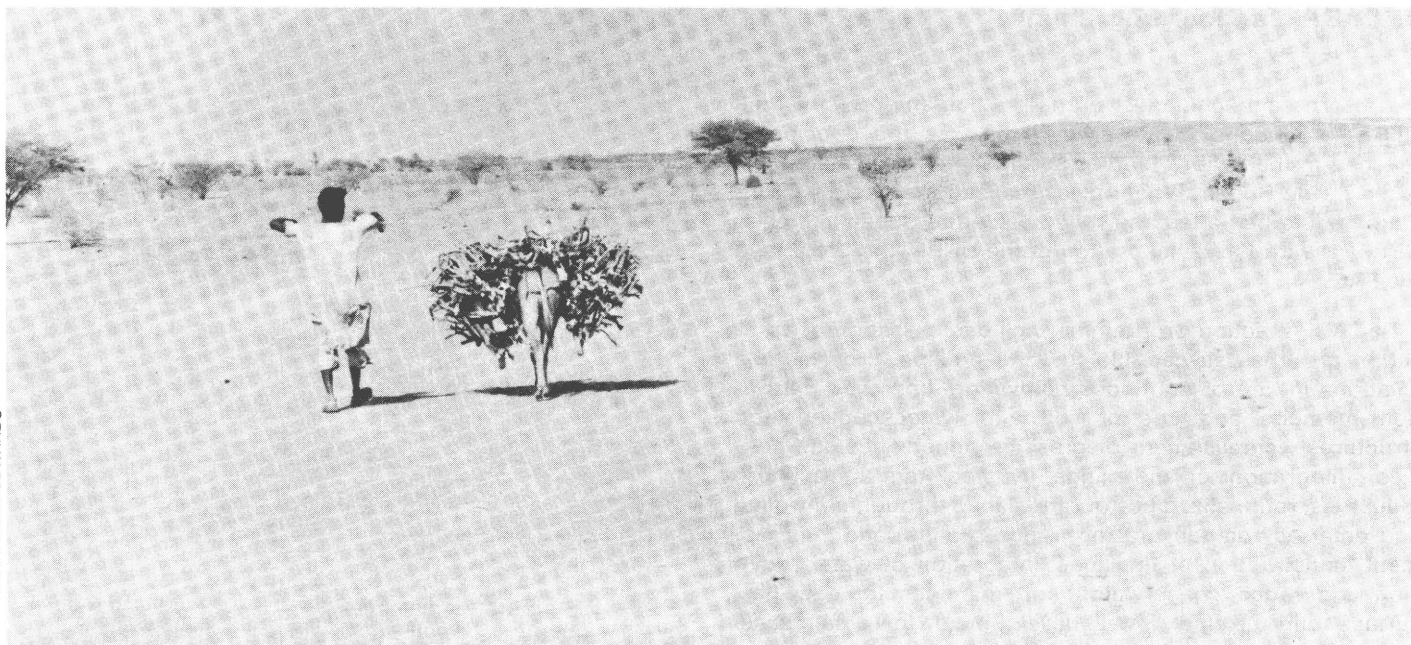
Desert encroachment is a serious problem in the Sudan, threatening all Nile irrigation schemes, 2,5 million feddans⁽¹⁾ of pump irrigation, 7 million feddans of mechanized crop farming, 75% of the world's gum arabic production, pasturage for about 10 million animal units of livestock and vast areas of woodlands. Surveys have shown that the desert

(1) One feddan equals 1.038 acres or 0,42 ha.

Under siege



EARTHSCAN/MARK EDWARDS



Collecting anything that can be used for firewood

had advanced 90 to 100 km within a 17 year period, and is currently advancing at the rate of 5 to 6 km per year.

Effects of desert encroachment

Food production has declined and continues to decline because of soil deterioration associated with desert encroachment and because of loss of land, especially lands buried by sand. Production data for the Kordofan Province indicate that the acreage needed to produce 73000 tons of groundnut in 1973 was almost five times that needed in 1961, and the decrease of sesame production was approximately in the proportion of 20 to 1 during the same period. In terms of productivity, sesame producers have lost, during twelve years, 19 feddans out of 20 and groundnut producers have lost 4 out of 5 (Figure 1).

Dura (sorghum) production has declined from 424 kg/feddan in 1961 to 191 kg/feddan in 1973 and maize and dukhon (millet) yields have declined from 333 kg and 542 kg to 154 kg and 71 kg/feddan respectively during the same period.

Meat and milk production are only a fraction of the area's potential. Annual offtake for cattle is 6-8% compared with 38-40% in U.S., and that for sheep is 15-20%. This is due in part to inadequate nutrition caused by overgrazing and desertized rangelands.

Former shrub woodlands are now barren deserts devoid of all vegetation except the annual grasses and herbs which grow during the rainy season. Only a few years ago, one could cut acacia shrub within 10 km of Khartoum. Now, one has to go 90 to 100 km in order to cut wood for fuel and charcoal.

Sudan is the world's major producer of gum arabic extracted from *Acacia senegal*, and it amounts to about 8-9% of the value of the country's total exports. The death of large numbers of trees has not only adversely affected Sudan's foreign exchange, but has also reduced the supply for worldwide use.

The situation in terms of agricultural and rangelands lost to the desert is alarming. A UNEP/UNESCO reconnaissance team reported that sand from the extensive Libyan desert and the Jebal Abyan plateau is being blown southward on a broad front by the steady northern winds. One wadi, Wadi Howar, is being buried over its whole length and large portions have already been transformed into sandy deserts. The team noted that the whole length of the Nile between Delgo and Karima, the greater part of the east-west loop, is subject to serious sand encroachment along the north-facing bank. Over long stretches of the band, dunes have reached the river and have obliterated cultivation and extensive settlement. In other areas, moving sand dunes are in the process of covering agricultural lands and villages. The reconnaissance team visited the Kerma Depression Land Reclamation Scheme, where large areas of irrigated agricultural land on alluvial soil have been abandoned due to sand accumulation, with an average depth of only 7 cm. Dunes continue to advance and cover valuable rangelands.

These short-term effects of desert encroachment are equally as serious as the long-term ones. The latter will ultimately lead to the complete disappearance of life in the affected regions. The former implies the hard task of maintaining the delicate balance between the effects of the changes caused by desert encroachment and the requirements of local communities to continue living in the areas affected which entails continuous adaptations to the new situations. The sociological aspects of desert encroachment lies in these adaptations and changes.

Northern Sudan's wildlife species are slowly vanishing because of desertification and corresponding habitat deterioration. The above-mentioned team reported small herds of gazelle in the Wadi Howar, but along the 220 km of the course of the wadi that were searched, no signs of oryx nor addax were seen. Many of the former wildlife species are apparently now extinct in the area, and those that remain are highly endangered.

DECARP's action programme

"Desert encroachment is primarily a human problem and it will take humans to solve it." This was the conclusion reached in the various studies and research projects undertaken in the Sudan. When it was realized that that desertification could be halted and rolled back, the Sudan launched DECARP with the collaboration of the UNEP, the UNDP and the FAO.

DECARP's action programme includes cessation of cultivation on areas susceptible to wind erosion, crop legume rotations in lieu of continuous cultivation, improved cultivation methods and use of soil and water conservation structures, establishment of grazing cooperatives and policies, integration of the range livestock and agriculture industries, rationalized use of rangelands through controlled and deferred rotation grazing, range seeding and improvement, construction of fire lines, integration of water provision and range conservation and management activities, surface and ground water development for small scale irrigation, water spreading, development of town perimeters, afforestation, sand dune stabilization, development of shelterbelts and establishment of wildlife reserves.

Having identified the implementation strategies and the infrastructure for the coordination and execution of the programme, nine projects, totalling approximately \$26 m, were put forward. Once the essential question of finance has been settled the Sudan, which has adequate numbers of trained manpower, hopes to rapidly move into action.

Considering the financial means at the disposal of the Sudan to carry out its economic and social development plan, in particular the \$5700 m which the petroleum exporting Arab states are investing, the financing of DECARP



EARTHSCAN/MARK EDWARDS

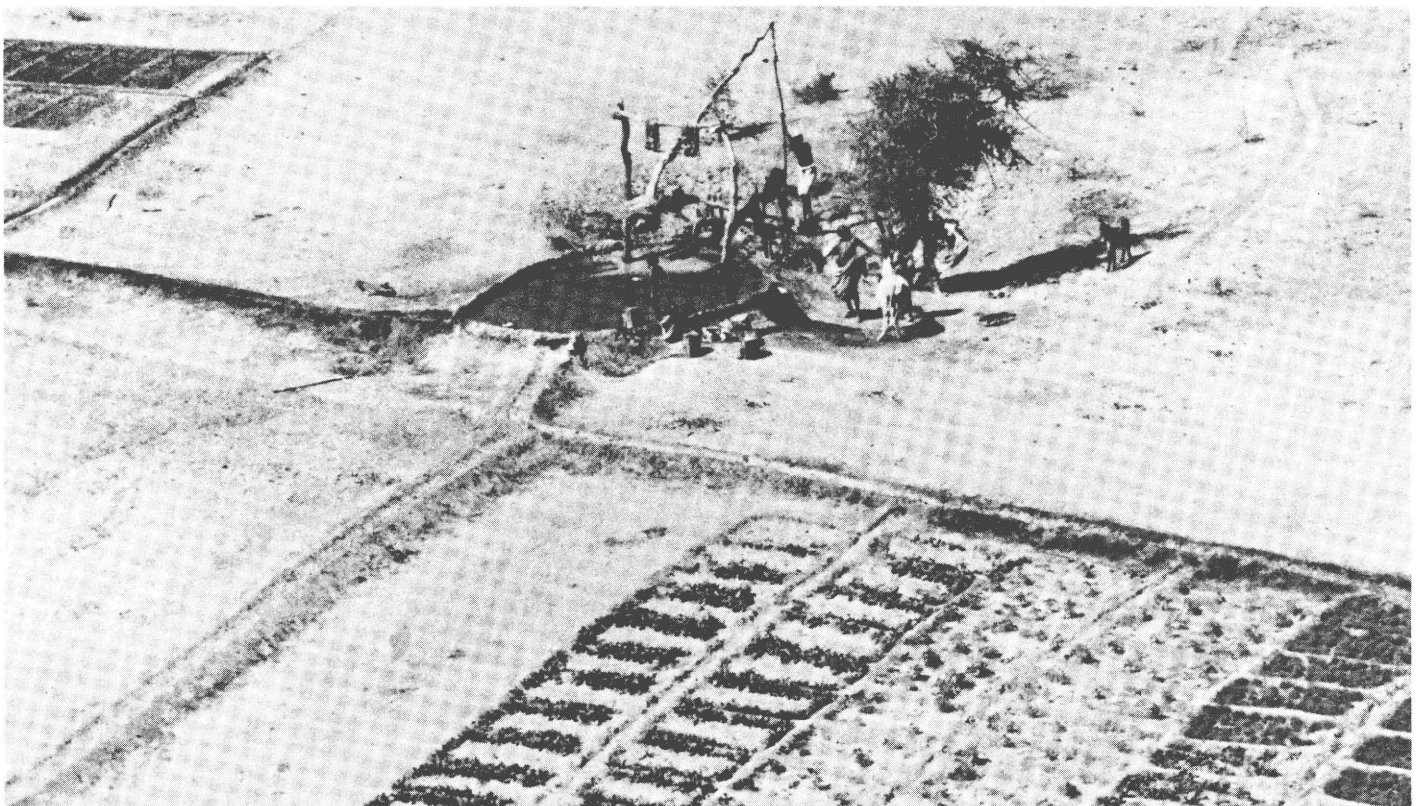
A rapid increase in population can exhaust an arid region's capacity to support its traditional inhabitants

will nevertheless raise certain questions about the overall objectives of rural development. The rural development programme concentrates on more immediately profitable schemes. In the long term a balance or compromise will have to be found, between on the one hand mechanized farming methods, which involve relatively high risks for the environment including the advance of the desert, and on the other hand the promotion of traditional farming which can be equally profitable but less damaging to the environment.

□

R.D.B.

A garden on the edge of the desert, made possible by the control of underground and surface water



EARTHSCAN/MARK EDWARDS

Community aid

EDF action in the fight against desertification

Inadequate rainfall. Irregular rainfall. Short rainy seasons. Extreme temperatures. The climatic conditions of the Sahel are such that the balance of agriculture, forestry and cattle farming are easily upset.

Although the recent drought was the first many people had heard about these conditions, it should be remembered that this was only a circumstantial aggravation of a normal situation that is in itself very precarious.

The situation has been made worse by the population explosion and by the vast increases in livestock in recent decades, which are the result of improved medical and veterinary knowledge and of the spread of the ways and means of increasing farm production.

All these pressures have upset the natural balance and desertification has started in many countries—Cape Verde, Senegal, Mauritania, Mali, Upper Volta, Niger, Chad, northern Cameroon and northern Benin, Sudan, Ethiopia, Somalia and south Madagascar, to mention but the worst hit.

Community aid

The Community has tackled the problem by running a series of schemes aimed at overcoming the worst difficulties. They come under three headings. Emergency aid (35.6 million EUA), exceptional aid (43.8 million EUA) and food aid (177.8 million EUA). All are special measures intended to cope with sudden deteriorations in the situation.

Alongside this, the Community has provided aid via the European Development Fund. A total of some 207 million EUA has been given, in the form of grants, for anti-desertification projects and successive Funds have provided increasing amounts (11 million EUA from the first EDF and 99 million EUA from the fourth). The beneficiaries are the countries mentioned above.

New rural water projects should relieve the pressure of man and beast on existing watering points (Mora region, Cameroun)



FED

This figure is less than 5% of the overall amount for the Community's grant aid to the associated countries as a whole (4200 million EUA). The vast majority of the projects involve hydro-agricultural improvements along rivers, integrated development schemes and rural water supply programmes, and their effect on desertification is by no means obvious. Some of the aspects may even be negative.

Projects which may help halt desertification

Although small-scale improvements like the 500 ha rice plots and the 800 ha Gorgol scheme in Mauritania (see photo) and the 300 ha Toula scheme in Niger may help to increase cereal supplies and be undoubted technical successes, they have little effect on desertification in that they do not reduce demographic pressure on the surrounding, dry, arable land. They often have a negative effect on the nomad's cattle, which are forced to use poor upland pastures, thereby making the problem of overcropping even worse, since these herds usually graze in lowland areas during the off-season.

In the same way, integrated development projects (like the 3M scheme in Niger, the Senegal ground-nut triangle productivity scheme and the Chad cotton programme) aimed at pushing up agricultural income by raising production via higher productivity should put a brake on desert formation. But usually, the means (i.e. draft teams and fertilizers) put at the peasant farmers' disposal, together with demographic pressure and a new life-style, have just as big an effect on the areas under cultivation. Fallow periods are reduced or cut out altogether, bushes which grow after the harvest and prevent the wind from eroding the soil are destroyed, as are the trees which protect the soil from the sun during the dry season.

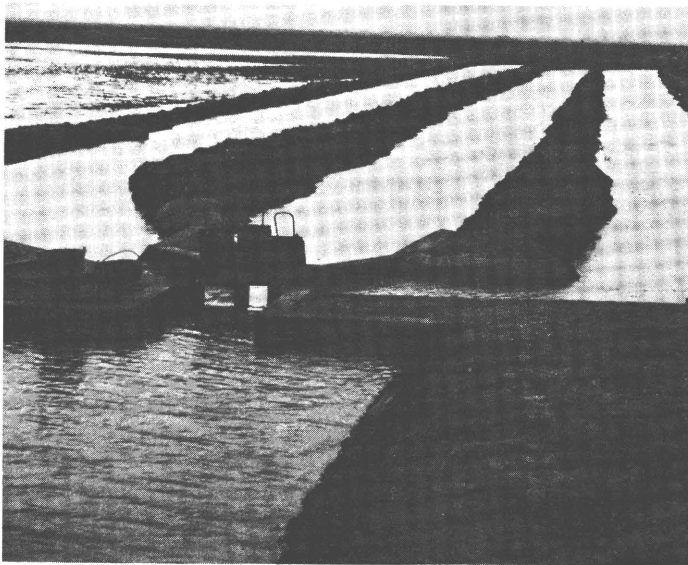
Similarly, rural water supply schemes in these ecological sectors should have a positive effect by producing a better spread of people and livestock and cutting down the risk of overexploitation, a principal cause of erosion in some places. But the schemes tend not to spread the cattle better. On the contrary, they bring about an increase in the number of livestock per hectare and advance the destruction of the soil. This is particularly obvious around boreholes where no effort is required to draw water for the cattle. They are poles of attraction and cause the destruction of the surrounding pastureland, while in other areas the grass is left to grow, becoming a fire risk in the dry season. All these things encourage erosion and, therefore, desert formation.

Specific anti-desertification projects

Alongside the above projects, which do not necessarily help prevent desertification, is another group of schemes which are actually aimed at protecting the soil, preserving water and so halting the process of desertification.

There is a 20-year schedule and the schemes, involving 22 million EUA or 0.5% of all grants, are grouped together into 15 projects covering 7 countries (northern Benin, Cameroon, Chad, Mauritania, Niger, Senegal and Upper Volta).

Of the earliest projects (Yatenga in Upper Volta, Bolakoumbé-Atakora in Benin and the soil preservation/anti-erosion campaign in the mountains of northern Cameroon), which involved building low banks to prevent erosion, river



Irrigation for the pilot rice-growing scheme in the Gorgol (Mauritania)

engineering, etc., practically nothing remains. It is too early to start drawing conclusions about more recent projects. The one exception, however, and all the more interesting for that, is the Badéguichéri rural development project in Niger. The region in question is typical of the Sahel and the project covers some 100 000 inhabitants working almost 60 000 ha of land. The idea is to increase cotton and food crop production, improve the soil and rationalize the use of rainwater by the appropriate works, with active help from the local peasant population.

It began in 1972 and was renewed for a further four years in 1977. The anti-erosion campaign of stage one was 95% successful, the peasant farmers themselves providing, and being paid for, the labour. The cost, in the region of CFAF 33 000 per ha, was reasonable. Better still, other similar schemes not originally catered for were also run. They included eight village tree-planting operations (20 ha), the 60 ha "Gao" plantation and the planting of shrubs along the banks. In addition, 50 wells were sunk, enabling more (670 ha + in 1976) market gardening to be carried out during the dry season. Finally, cereal crops were increased by the introduction of a new food crop (one of the pulses).

In spite of the very hard climatic conditions, further aggravated by the recent drought, most of the original aims were achieved and even extended without deviating from the target of anti-desertification.

Critical analysis of past and present schemes

The modest results obtained at Badéguichéri are encouraging; the field is one where, it must be admitted, there is usually little reason for encouragement.

But something has to be done. Needs are enormous. At its Paris meeting in October 1977, the ecology/environment group of the Club of Friends of the Sahel calculated that CILSS member countries alone would need 375 million EUA for the most urgent forestry and anti-desertification projects over the next 10 years. This includes a 212 million EUA pre-1981 emergency instalment. The group also said that it was impossible to calculate the size of the whole area where plant cover could not be reconstituted without help. The authorities of the CILSS countries have listed urgent schemes to restore some 170 000 ha of land over the next five years.

Alongside this, the Community's financial contribution to the anti-desertification campaign is small and the results achieved even smaller. However, it should be noted that the short-term means used to counter the effects of drought on the people and livestock of the Sahel are considerable, amounting to 257 million EUA in seven years. An assessment both of these figures and the reasons for failure and success will help lay the ground for the EDF to act more effectively here.

The reasons for failure appear diverse, but they can, in fact, be reduced to one—the slow rate at which results appear as compared to the means deployed and the financial and human constraints which the results imply. This slowness is the main reason for both the national authorities and the Commission choosing projects with the best short-term economic effects when the programming missions go out. It is also this slowness which leads the farmer to destroy trees and bushes and concentrate on the most profitable crops without bothering about rotation.

Yet everyone, at whatever level, is aware of the seriousness of his decisions and of the far-reaching effects they may have.

The future

If we firmly intend to tackle the root causes of desertification, then we must approach the whole series of problems, of which the sheer scale is by no means the least, pragmatically. This approach might be based on the following considerations called from the successes and, above all, the failures of the past.

At project level

(1) It would be better to drop specific anti-desertification schemes and to include anti-desertification measures, along with the relevant ways and means of implementing them, in each agricultural project. A hydro-agricultural improvement project, for example, could involve developing the arid land of the farmers concerned and allocating pastureland for the cattle-raisers and their herds who normally use the area to be improved in the off-season.

(2) Anti-desertification should involve maximum use of local labourers, who should have the project explained to them and be paid for their work.

(3) The basic geographic area where the project is to be run should be within a specific territory so that the community using it really feels it is being run for their particular benefit.

(4) The means used should be flexible enough to meet any of the population's need not originally catered for.

The above points aim to get to population concerned better to accept the inevitable constraints (some areas out-of-bounds, forage areas closed during the rainy season, contour farming, wind breaks, planting trees in villages, etc).

In decision-making at national and Community level

(1) Preference should be given to agricultural projects containing or involving anti-desertification measures.

(2) It must be realized that the technical constraints and financial commitments involved in this type of scheme must be spread over many years.

(3) Parallel financing must be organized from Community sources, since large-scale maintenance is always beyond the means of national departments. □ ROBERT GREGOIRE

Action against drought in the Sahel, Ethiopia and Somalia

As Dr Mostafa K. Tolba, Secretary-General of the Nairobi Conference on Desertification, said, "it was the continent-wide drought in Africa between 1969 and 1973 which dramatically drew international attention to the problem of desertification."

Drought and desertification are closely linked and their interaction was discussed at an OAU symposium in 1977, also in Nairobi, at a preparatory regional conference on Africa south of the Sahara.

In addition to its programme of food aid for Sahel populations badly hit by drought, the European Community has given these countries assistance in the form of exceptional aid and emergency aid.

It is also worth noting that the projects in the indicative programmes of Community aid for the countries of the Sahel, where agricultural projects predominate, are included in the first generation of projects (1977-1982) of the CILSS and the Club of Friends of the Sahel.

Food aid

The Sahel countries(1) have continuously received food aid from the Community since 1970. Between 1970 and 1977, this amounted to some 572000 t of cereals, 65000 t of milk powder and 17500 t of butteroil, to a total value of almost 178 million EUA, including transport costs, which were generally covered by the Community budget.

In 1973 and 1974 alone, when the drought was at its worst, deliveries to these countries involved some 180000 t of cereals, 20000 t of milk powder and 10000 t of butteroil, an exceptional effort bearing in mind the quantities then available for food aid.

These schemes were implemented in close cooperation with the food aid schemes of the individual EEC countries and other donors. Transport (military planes supplied by the member states) was also coordinated.

In 1975, Cape Verde, then newly independent and faced with a particularly difficult situation after prolonged drought, also began receiving Community aid. The first year, this amounted to 4000 t of cereals, 300 t of milk powder and 100 t of butteroil; these quantities had more than doubled by 1977 (8500 t of cereals, 650 t of milk powder and 250 t of butteroil).

Exceptional aid

This primarily consisted of emergency schemes to overcome the most serious effects in the Sahel. Financing agreements were signed on 5 March 1973, under the 3rd EDF, for the following:

Exceptional aid — 3rd EDF — (000 EUA)

Upper Volta: 2931; Mali: 7533; Mauritania: 2929; Niger: 4238; Senegal: 5998; Chad: 3317; Somalia: 3799.

More recently, exceptional aid has been granted (under Article 59 of the Lomé Convention) to Niger for the supply of groundnut seed (9614000 EUA) and to Somalia to settle nomads hit by the drought (3420000 EUA).



EEC food aid for the Sahel, Ethiopia and Somalia has topped 178 million EUA

Emergency aid

A total of 35.6 million EUA was included in the Community budget in December 1973 as emergency aid to finance two series of measures which would:

- make food aid more effective (repairs to roads and tracks, construction of storage silos and extra trucks for countries in the disaster area);
- repair and improve farming and livestock equipment (sinking wells, supplying seeds, animal health protection, etc.).

Emergency aid — (000 EUA)

Senegal: 3300; Mauritania: 4800; Mali: 7400; Upper Volta: 4300; Niger: 7700; Chad: 5100; Ethiopia: 3000.

Prospects of further drought

There is a threat of further serious drought and therefore a difficult food situation in the coming months(2) in some parts of the Sahel, primarily Cape Verde, the Gambia, Senegal and Mauritania. Most of these countries have already asked the EEC for food aid. The Commission has also received a collective appeal from the ambassadors of the Sahel countries for exceptional aid to face up to the present situation. When drafting its food aid programme for 1978, the Commission included large quantities for these countries as well as substantial reserves, so it should be in a position to act effectively in any emergency situation. □

P. COVA

(1) Somalia and Ethiopia included.

FOOD AID TO THE SAHEL, ETHIOPIA AND SOMALIA

(World prices)

| | Cape Verde | Gambia | Senegal | Mauritania | Mali | Upper Volta | Niger | Chad | Ethiopia | Somalia | Total (1000 EUA) |
|-----------------------|------------|--------|---------|------------|---------|-------------|--------|--------|----------|---------|------------------|
| 1970 | | | | | | | | | | | |
| ● In volume (tonnes) | | | | | | | | | | | |
| — Cereals | — | — | — | — | 30 000 | — | 15 000 | — | — | 8 000 | 53 000 |
| ● In value (1000 EUA) | — | — | — | — | 2.50 | — | 1.25 | — | — | 0.80 | 4.55 |
| 1971 | | | | | | | | | | | |
| ● In volume (tonnes) | | | | | | | | | | | |
| — Cereals | — | 1 500 | — | — | 7 500 | 9 500 | — | — | — | — | 18 500 |
| ● In value (1000 EUA) | — | 0.75 | — | — | 0.60 | 0.85 | — | — | — | — | 2.20 |
| 1972 | | | | | | | | | | | |
| ● In volume (tonnes) | | | | | | | | | | | |
| — Cereals | — | — | 8 555 | — | 17 000 | 5 000 | 7 000 | 7 000 | — | 15 000 | 59 555 |
| ● In value (1000 EUA) | — | — | 1.15 | — | 2.05 | 0.70 | 1.15 | 1.60 | — | 3.85 | 10.50 |
| 1973 | | | | | | | | | | | |
| ● In volume (tonnes) | | | | | | | | | | | |
| — Cereals | — | — | 15 000 | 5 000 | 20 000 | 14 900 | 7 500 | 6 000 | 5 000 | 7 000 | 80 400 |
| — Milk powder | — | — | 2 400 | 1 800 | 2100 | 1 800 | 2 500 | 2 400 | — | — | 13 000 |
| ● In value (1000 EUA) | — | — | 4.40 | 1.80 | 5.15 | 4.15 | 3.35 | 3.85 | 0.95 | 2.25 | 25.90 |
| 1974 | | | | | | | | | | | |
| ● In volume (tonnes) | | | | | | | | | | | |
| — Cereals | — | 1 000 | 15 000 | 21 000 | 26 000 | 15 000 | 30 000 | 10 000 | 29 000 | 5 000 | 152 000 |
| — Milk powder | — | 500 | 500 | 2 800 | 2 800 | 3 300 | 3 950 | 800 | 3 000 | 1 060 | 19 710 |
| — Butteroil | — | — | 300 | 2 000 | 450 | 2 600 | 1 450 | 450 | 2 300 | 6.50 | 10 200 |
| ● In value (1000 EUA) | — | 0.55 | 3.15 | 9.80 | 1 060 | 10.20 | 14.65 | 560 | 12.20 | 3.00 | 6 975 |
| 1975 | | | | | | | | | | | |
| ● In volume (tonnes) | | | | | | | | | | | |
| — Cereals | 4 000 | 1 500 | 21 000 | 7 500 | 8 000 | 3 500 | 17 000 | — | 7 500 | 25 000 | 95 000 |
| — Milk powder | 300 | — | 700 | 1 200 | 1 500 | 1 300 | 2 000 | 1 200 | 1 600 | 2 000 | 11 800 |
| — Butteroil | 100 | 200 | — | — | 100 | — | — | — | — | 850 | 1 250 |
| ● In value (1000 EUA) | 1.15 | 0.60 | 4.55 | 2.25 | 2.70 | 1.55 | 4.60 | 0.75 | 2.50 | 7.40 | 28.05 |
| 1976 | | | | | | | | | | | |
| ● In volume (tonnes) | | | | | | | | | | | |
| — Cereals | 5 000 | 3 000 | 9 000 | 6 000 | — | 2 000 | 10 000 | 5 000 | — | 25 000 | 65 000 |
| — Milk powder | 450 | — | 3 400 | 1 200 | 2 900 | 2 300 | 2 450 | — | 500 | 3 000 | 16 200 |
| — Butteroil | 100 | — | — | 350 | — | 750 | — | — | 1 500 | 1 100 | 3 800 |
| ● In value (1000 EUA) | 1.25 | 0.55 | 3.20 | 2.05 | 1.30 | 2.45 | 2.95 | 0.95 | 1.35 | 7.25 | 23.90 |
| 1977 | | | | | | | | | | | |
| ● In volume (tonnes) | | | | | | | | | | | |
| — Cereals | 8 500 | — | 8 000 | — | — | — | — | — | 7 500 | 25 000 | 49 000 |
| — Milk powder | 650 | — | — | 1 000 | — | — | — | — | 370 | 2 750 | 4 770 |
| — Butteroil | 2.50 | — | 200 | 1 200 | — | — | — | — | 7.50 | — | 2 400 |
| ● In value (1000 EUA) | 2.00 | — | 1.55 | 1.05 | — | — | — | — | 2.25 | 5.40 | 13.05 |
| TOTAL 1970/77 | | | | | | | | | | | |
| ● In volume (tonnes) | | | | | | | | | | | |
| — Cereals | 17 500 | 7 000 | 76 555 | 39 500 | 108 500 | 49 300 | 86 500 | 28 000 | 49 000 | 110 000 | 572 455 |
| — Milk powder | 1 400 | 500 | 7 000 | 8 000 | 10 300 | 8 700 | 10 900 | 4 400 | 5 470 | 8 210 | 65 430 |
| — Butteroil | 450 | 200 | 500 | 3 550 | 550 | 3 350 | 1 450 | 450 | 4 550 | 2 600 | 17 650 |
| ● In value (1000 EUA) | 4.40 | 2.45 | 18.00 | 17.75 | 24.90 | 19.90 | 20.35 | 12.75 | 19.88 | 29.95 | 177.90 |

THE CONVENTION AT WORK

ACP Council of Ministers in Lusaka

● Intra-ACP cooperation ● Lomé Convention problems ● Ideas for Lomé II

Lusaka hosted its most important international meeting since the 1975 Group of 77 conference when the ACP Council of Ministers held its 14th session in the Zambian capital on 6-10 December last. Unlike many African capitals, reputed for their unhealthiness and sprawling shanty-towns, Lusaka was able to offer a clean and graceful welcome to a notably freindly conference (exclusively covered by the "Courier") which some early problems of organization could not upset—quite an achievement in view of Zambia's economic difficulties with the falling price of copper (on which 70% of the economy depends) and the repercussions of the fighting in Zimbabwe, including the cost of aid for refugees.

President Kaunda opened the meeting in Mulungushi Hall with a speech in which he called on the ACP countries

to unite and work together to counter the world's big economic powers (see box); they were worried, he said, about "what seemed to have been the indifference on the part of the EEC to the wider objectives of the Lomé Convention."

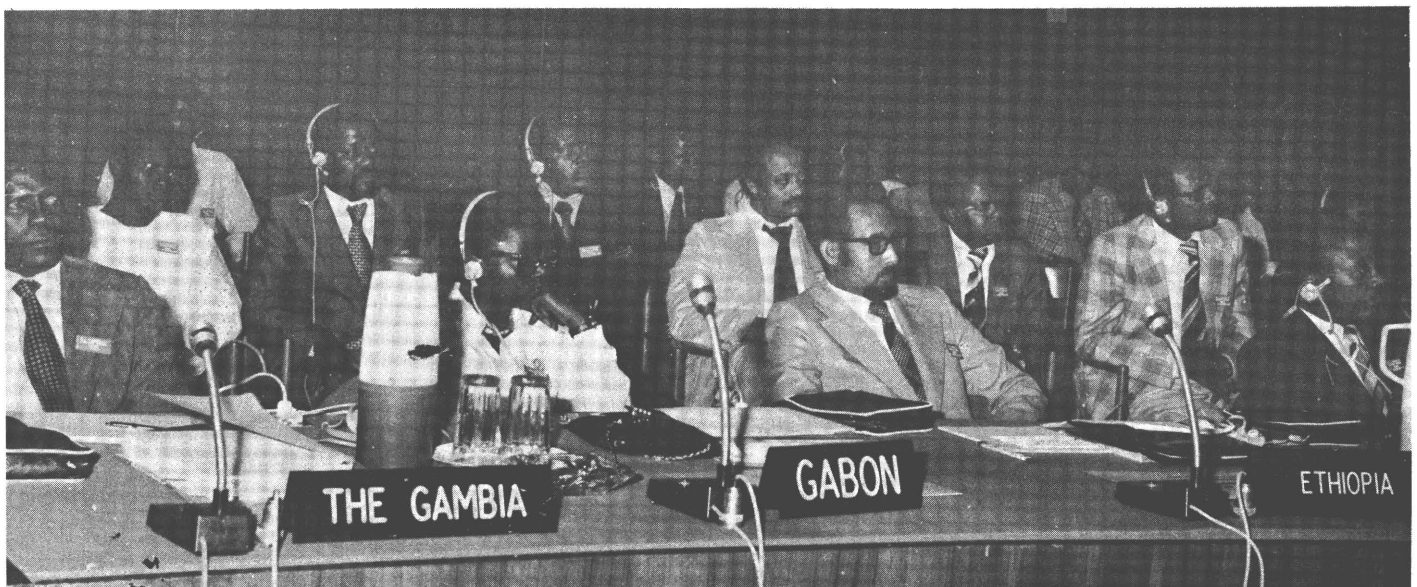
Peter Matoka, Zambian Minister for Economic and Technical Cooperation and President of the ACP Council of Ministers, said EEC-ACP trade relations continued to be "a source of concern". For instance, ACP representatives for the second year running had had to go through "a most discouraging experience at the 1977/78 ACP-EEC sugar price negotiations", Mr Matoka said. In some areas, notably generalized preferences and trade, Europe's application of the Lomé Convention had been particularly disappointing; he was, however, "heartened by the recent partial solution to the problems of the ACP beef producers and by the recent signing of the agreement to assist the ACP states to tackle the problem of aflatoxin in their export of groundnut cakes."

The ACP ministers (including Fiji's Prime Minister, Ratu Sir Kamisese Mara) began by examining some internal questions, mainly concerning the budget and the reorganization of the ACP Secretariat. After lengthy discussion it was agreed, in view of the amount and importance of the work to be done by the Secretariat, to increase the staff considerably and to create new departments to improve efficiency. The reorganization will be spread over two years, up to 1980, but most of the new, highly expert officials should arrive in time to prepare for the Lomé II negotiations.

Intra-ACP cooperation

The *raison d'être* of the ACP group was a pact with the EEC. How far would the group as such exist without it? Fears of perpetual dependence on better organized countries underlay a statement by Robert Naah, Cameroon's Vice-minister for the Economy and the National Plan, who said, "cooperation for us is pointless unless it allows us to reduce our dependence on Europe".

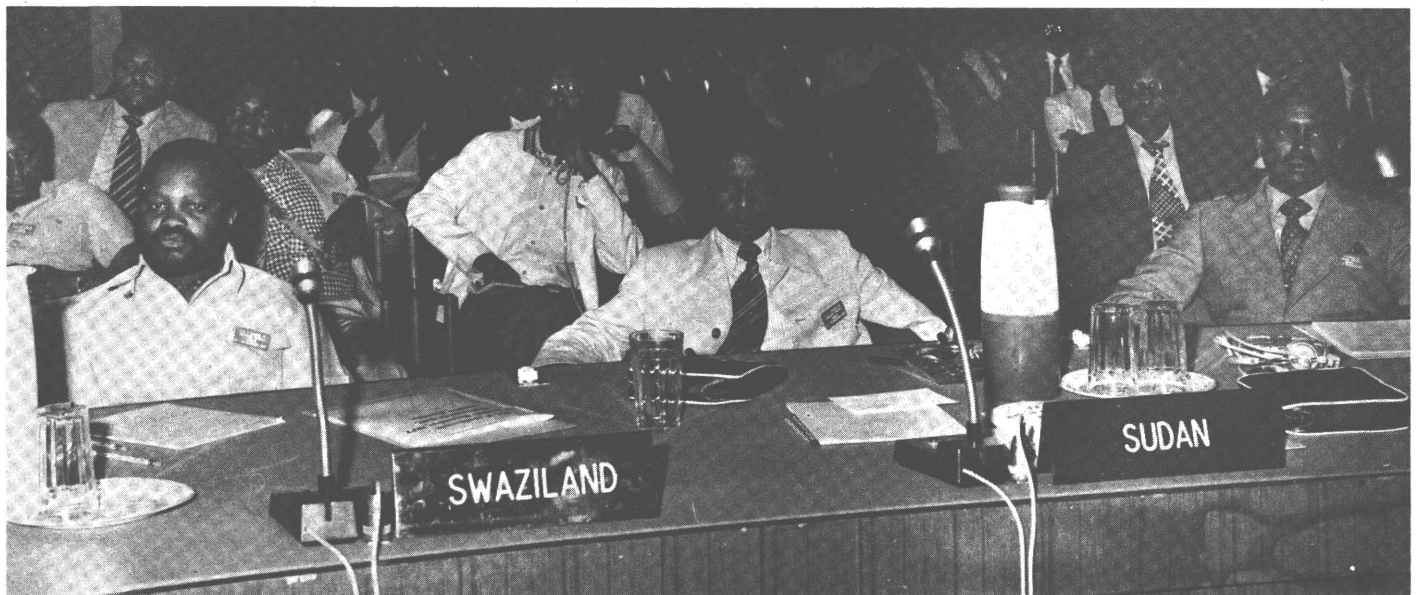
The ACP countries share very little economic and commercial organization, either among themselves individually or as regions. Regional organizations have existed for some time in Africa (such as UDEAC and ECOWAS), the Caribbean (CARICOM) and the Pacific, but they are generally in difficulty and there is no economic or cultural organization of this kind between the ACP countries as a whole. Communications, the exchange of economic information (statistics) and ACP alignment within existing international organizations are cases in point.



The conference room at the ACP Council of Ministers meeting in Lusaka



Left to right: Mauritian, Malian, Malawian and Malagasy representatives at Lusaka Council of Ministers



Mr Omar Giama, ambassador of Somalia in Brussels, between the Swazi and Sudanese representatives at the Lusaka Council of Ministers

This weakness was of great concern to the ACP ministers and intra-ACP cooperation came over as an absolute necessity. There were strong feelings on the ACP countries' vulnerability in their isolated economic and political dealings with the EEC and other big economic powers. Among the main proposals at the meeting were Tanzania's idea of appointing a vice secretary-general in charge of intra-ACP cooperation; Swaziland's call for the ACP Secretariat, following the European example, to be sufficiently well staffed to prepare the strongest possible negotiating positions; and the reiteration of a pré-Lomé idea, which was aired earlier at the Fiji ACP-EEC session, to set up an ACP investment bank. IMF expert Antoine Taméogo (Upper Volta) raised great interest with his initial report on the investment bank proposal, which will go for UN

and World Bank finalization before being adopted by the ACP ministers at another meeting. The bank seems one of the most promising means of furthering intra-ACP cooperation and the "collective self-reliance" advocated by all the ACP countries.

A special Council of Ministers on intra-ACP cooperation will be held after their next meeting, scheduled for Bangui (Central African Empire) in June to discuss communications between ACP countries.

Renewing the Lomé Convention

The Lusaka Council was less than enthusiastic about the implementation of the Lomé Convention so far. After two years, the results were generally considered disappointing, particularly in the areas of trade and industrial

cooperation. The ACP ministers felt that the trade provisions were constantly undermined by the Community's extending its generalized system of preferences (GSP) to third countries, thereby largely eroding the advantages which should benefit the ACP group.

With sugar, textiles and non-competitive agricultural products as cases in mind, the ministers pointed to the increased difficulty of selling in Europe due to EEC agreements that gave third countries greater advantages than Lomé signatories. For instance, tomatoes from Senegal enter duty-free but still come under an 11% tax, compared with 4% for Maghreb tomatoes, 5% for Greek and 6% for Spanish.

The situation is improving, nonetheless, for beef and bananas. In his capacity as leader of the ACP banana exporters, Mr Naah announced that

Following his talks with EEC Commission officials and the President of the EEC Council of Ministers, the Community had promised to help the ACP producers to set up a marketing organization for their bananas in Europe. West Germany was reviewing its imports of bananas from Latin America. However, the EEC is not offering guaranteed prices (bananas are not in the common agricultural policy) and has no plans to influence consumers or the big monopolistic fruit companies in what remains a market economy.

In industrial and financial cooperation, the ministers called for greater efforts towards regional projects and microprojects and through the Center for Industrial Development, which seemed to them to have made a rather laborious start.

For Stabex, the ministers backed Cameroon's opinion that Gabon should receive compensation for its 1975 timber exports despite having failed to meet the deadline for claims set by the Community.

Negotiations on renewing the Lomé Convention are to start in the second half this year. The ACP Council of Ministers considered it would be necessary to take the present arrangements further, by filling existing gaps (e.g. including copper and phosphates in Stabex, as requested by Zaire and Togo) and by finding new provisions more favourable to the ACP countries. Suggestions included examining the question of security for ACP nationals in Europe and reviewing the salaries of EEC delegates in the ACP countries, which are drawn from the European Development Fund.

Human rights and the cultural aspects of cooperation. These subjects led to some lively debates. First, human rights. The ministers at Lusaka made their feelings very plain: the ACP countries would not accept a human rights clause in a further Lomé Convention because it would lead directly to Europe being involved with and interfering in the ACP countries' internal affairs. Shared by a large majority, this point of view maintains that a political clause would change the character of what is an economic and commercial agreement. The ministers held that the EEC should first help those who are deprived of human rights in disregard of international public opinion and all moral rules—the allusion was to Rhodesia, South Africa and Namibia. There was also reference to open discrimination against ACP nationals in Europe, and who are often publicly attacked by certain publications and political movements. The door was not completely shut on human rights, however; some ACP



(left to right): President Kaunda, Ratu Sir Kamisese Mara and Mr Tiéoulé Konaté, ACP Secretary general, at Lusaka

representatives did feel the subject should be discussed with the EEC.

Cultural cooperation. This did not get any further in Lusaka than human rights, perhaps because its supporters find it a difficult idea to define. Most of the ministers said they could not really see how a cultural clause could take this kind of cooperation further than the educational possibilities already offered by the Lomé Convention and existing bilateral cultural contacts. A cultural clause could even be dangerous, most of the ministers felt, in that the EEC countries could practise a kind of intellectual neocolonialism through the considerable means at their disposal. It may be noted that EEC development commissioner Claude Cheysson has expressed similar reservations about the so-called "cultural dimension" of cooperation (see "Courier" no. 46, yellow pages I and II).

Many other subjects were discussed at Lusaka, including the proposed common fund to stabilize commodity prices, on which the ministers expressed considerable regret that the Geneva talks had broken down due to the "ill will" of the rich countries.

But if there was an overall lack of enthusiasm in Lusaka for the current development of EEC-ACP relations, particularly as regards the application of the Lomé Convention, it should not obscure the clear wish of the ACP Council of Ministers⁽¹⁾ to improve cooperation with the EEC under a Lomé Convention II. □ L.P.

(1) The ACP Council of Ministers is to be chaired from 1 January 1978 by Percival Patterson (Jamaica) for the Caribbean and will be composed of representatives from Ethiopia (East Africa), Niger (West Africa), Burundi (Central Africa), Lesotho (southern Africa) and the Pacific.

Dr Kaunda:

Doubts about the Community's ACP policy

Opening the 14th ACP Council of Ministers meeting in Lusaka, President Kaunda of Zambia recalled that the signature of the Lomé Convention on 28 February 1975 had been "acclaimed as constituting a major turning point in the history of international economic relations in the second half of the 20th century, in fact, in the economic history of modern man".

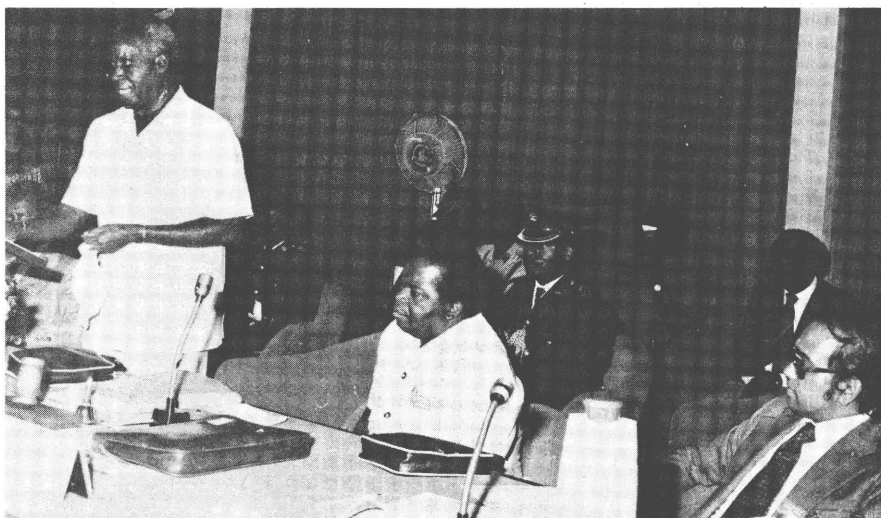
"However," he told the delegates, "I believe I speak the minds of most of you if I observe that there are many issues in the implementation of the Lomé Convention where the ACP group is not happy with the way things have gone so far. There has been some reluctance among our partners to honour certain provisions of the Convention.

"I need hardly remind you that the new relationships defined through the Lomé Convention were founded on equality and respect for reciprocal interests between the partners. I wish to emphasize that the importance of this is cardinal in that there can be no cooperation where there is no equality".

The ACP states had expressed grave concern over what seemed to have been "the indifference on the part of the European Economic Community to the wider objectives of the Lomé Convention. The EEC should not be allowed to backpedal, especially on matters of vital interest to the ACP group of states.

"In our view, we negotiated the Lomé Convention in the belief that it will confer on our exports, terms and conditions more favourable than those granted to the products of other countries. After some two years of implementation of the Convention, we now have many reasons to doubt that this is the understanding and the policy of the Community.

"The situation is not helped by the information which we receive from time to time of the Community sign-



Dr Kaunda with Peter Matoka, Minister of Economic and Technical Cooperation and chairman of the Lusaka meeting, and Satya Nandan (Fiji), chairman of the ACP ambassadors

ing some preferential agreements with third countries—without the ACP member states receiving the necessary prior information from the Community as required by the Convention for the safeguard of the interest of ACP member states.

"Neither are we comforted by the Community's haste in extending its Generalized System of Preferences without adequate safeguard for the ACP's trade benefits under the Lomé Convention, which face the threat of equally rapid erosion through such extension.

"However, these developments on the one hand impose a very serious responsibility on the partners in the Convention and on the other they make it all the more critical for the ACP states to close their ranks and intensify their solidarity. What is more, these developments underline the need for a higher degree of cooperation, self-help and collective self-reliance among the ACP states in the struggle for sustained social and economic progress.

"I have in some of my previous pronouncements made my view clear on the cardinal issue of African cooperation and the solidarity among all the developing countries. These are, in a nutshell, that the developing countries have absolutely no choice but to work together if they are to get any concessions from the economic giants of the world such as the USA, West Europe and others. The specific concessions won through negotiations and renegotiations of some of the provisions of the Lomé Convention serve to testify this.

"In a world characterized by astute manipulations of the weak by the strong to the advantage of the latter,

the hopes for our continued survival will surely lie in our strength through unity.

"It is indeed paradoxical that the ACP group of states do not form a preferential trade group, let alone common market, but have established a trade agreement with the EEC which is a common market. In this regard it is needless for me to remind you of the old adage, namely "charity begins at home".

"This leads me to the issue of strengthening our own institutions responsible for the implementation of the Lomé Convention, especially the ACP Secretariat... It goes without saying that the successful implementation of the Lomé Convention in our own interests depends very much on our technical capability to negotiate; on the efficiency and effectiveness of the Secretariat and on its ability to handle the complex problems concerning the relationship of ACP states and the EEC," Dr Kaunda said.

The Zambian President has made it clear that he wants to see ACP-EEC relations developed further under a Lomé II Convention, despite his critical examination of the present state of affairs.

Dr Kaunda closed his speech with a look at the southern African situation. He condemned the "current acts of naked aggression" by Rhodesia against Mozambique, Botswana and Zambia and called on Britain and the USA to understand that the Rhodesian government had "no intention to negotiate a settlement".

"Africa cannot participate meaningfully in the kind of economic cooperation I have earlier spoken of unless it is completely free and independent," Dr Kaunda said. □

CONSULTATIVE ASSEMBLY

Condemnation of apartheid

The Joint Committee of the ACP-EEC Consultative Assembly which brings together parliamentarians and delegates from both sides, met in Maseru, Lesotho from 28 November to 2 December 1977, passing resolutions on southern Africa and the Middle East, and adopting declarations on migrant workers and the negotiations for a second Lomé Convention. Because of the situation of Lesotho, the host country, which is surrounded by South Africa, the meeting of the Joint Committee took on a political complexion with a lengthy debate on apartheid. The resolution on the political situation in southern Africa began with a reference to the special measures undertaken within the Lomé Convention on behalf of Botswana, Lesotho and Swaziland, and called for these to be stepped up. The Joint Committee reaffirmed its solidarity with those in southern Africa who have created, or are struggling for, non-racial societies, and condemned South Africa as "an immediate threat to international peace and security" and attacked "the efforts of the South African government and the illegal Rhodesian regime to maintain and reinforce the oppression in these countries through their policies of apartheid, continuous and increasingly blatant violations of human rights and fundamental freedoms and aggressions towards neighbouring countries."

The resolution called for immediate independence for Namibia and Zimbabwe and supported the struggle "against the racist minority regime by all the democratic forces of the peoples of South Africa in favour of change based on democratic principles ensuring the equality of all citizens without racial or any other distinction". The Maseru delegations agreed a series of actions to assist the liberation of South Africa, Namibia and Zimbabwe:

- full implementation of the Security Council decision imposing an arms embargo on South Africa, and of the United Nations resolution on economic sanctions against Rhodesia,

- refusal to recognise the policy of Bantustans and its consequences,

- prohibition of the transfer of nuclear technology and equipment to South Africa,

- discouragement of all new investments and all transfers of capital to South Africa and Namibia under the

present circumstances, and encouragement of such investments and transfers of capital to the independent neighbouring States,

- measures to put an end to the recruitment of mercenaries,

- increasing contributions to help the victims of oppression and apartheid and applying appropriate pressures to secure the release of political prisoners and the restoration of fundamental rights."

On the code of conduct adopted by the EEC for European companies with subsidiaries, branches and representatives in South Africa, the Maseru resolution welcomed the move but on the question of its voluntary nature asked "that the measure provided for in the code be translated into fact with the aid of regular checks and frequent reports, in particular to the European Parliament."

Deadline for Lomé II

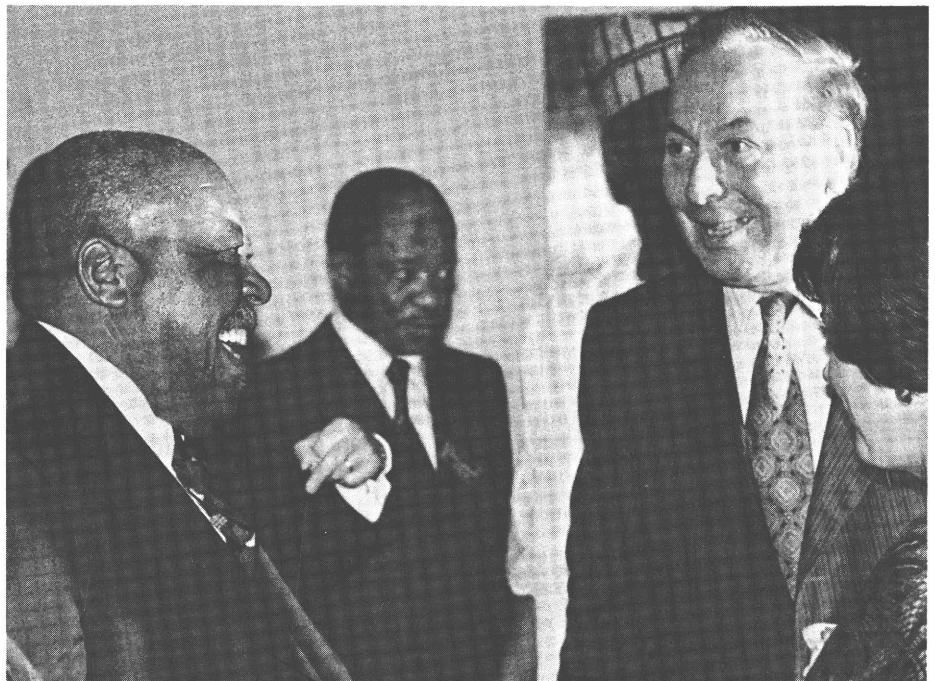
The other main items on the agenda of the Joint Committee was the present state of ACP-EEC cooperation under the Lomé Convention and the impending question of its renegotiation and renewal. The representatives set a deadline for a new convention calling for negotiations to start not later than 1

September 1978 and hoping that they could be concluded by the spring of 1979. Both sides in Maseru believed the existing convention was a "valid basis" for a new one, but stressed the need to consolidate and develop some aspects and to extend the convention into new areas. Some of these areas were touched on in the final declaration and in speeches from both sides, although the details will obviously have to wait for the actual negotiations. Both sides are currently in the process of sounding out reactions to new ideas. The upholding of human rights, which has already been mooted by various ACP and EEC personalities for inclusion in a new convention, was approved by the Joint Committee. Respect for human rights and fundamental freedoms "must be given adequate expression in the new convention" the declaration said, "in accordance with the Universal Declaration on Human Rights, to which all the partners to the Convention have subscribed." The declaration also calls for a strengthening of the structures of the convention "to ensure that all the partners participate and exercise joint responsibility", and for further consideration of the duration of a new convention, "taking account of the drawbacks associated with the present system, and that in any event the continuity of relations between the two parties be ensured."

Lomé I: room for improvement

The representatives of the European Parliament and the ACP countries also

A lighter moment in Maseru, prime minister Leabua Jonathan (left) with Maurice Foley, the EEC's deputy director-general for development



made a number of points on the working of the present convention. Although there was general satisfaction with the way things had gone, and a belief that the convention was "a realistic step towards the creation of a new economic order based on equality... and of a genuine partnership between the industrialized and developing countries," there were a number of suggestions for improvement.

In view of the importance to a number of ACP countries of sugar, bananas and rum, the Joint Committee called for "effective solutions" to the problems encountered by these producers. It also asked for a more durable arrangement for beef and veal and for improvements in the Stabex scheme. On the question of industrial cooperation, the Committee called for the continuation of adequate resources for the Centre for Industrial Development and called on the economic and industrial operators in the private sector of the industrialized countries to become more involved in industrial cooperation with the ACP countries. The declaration stressed the importance of the report which is to be drawn up by ambassador Mathe of Botswana on greater cooperation between economic and social groups in the EEC and ACP countries, and regretted that the Centre for Agricultural Development had not yet been set up.

"Growing solidarity"

The opening session of the Joint Committee was addressed by the prime minister of Lesotho, Dr Leabua Jonathan, who detailed for the ACP and EEC delegations, the difficult realities of his country of encirclement by South Africa. He believed that southern Africa had become the concern of all countries present and, he continued, "the role that some members of the EEC are playing in the resolution of the questions of Zimbabwe and Namibia is sufficient testimony of this concern. We appreciate their efforts as we do the pronouncements of the EEC, as a joint body, on these vexing questions. We have taken note of the code of conduct that the EEC has recently adopted regarding companies from the EEC operating in South Africa. This is a step in the right direction. It is evidence of the growing solidarity between the ACP and EEC countries. It is my sincere hope that this solidarity shall find expression in other areas; in bridging the gap between the developed and developing world and in translating the international economic order on the basis of the idiom of justice and fairness," Dr Jonathan said. □

ACP/EEC COMMITTEE OF AMBASSADORS

The ACP-EEC committee of ambassadors held its third meeting in Brussels on 23 November in ACP House, with Mr Van der Meulen, in the chair.

The meeting was essentially concerned with the current working of the Lomé Convention since another meeting in preparation for the third session of the ACP-EEC Council of Ministers in Brussels in mid March, will be held later.

The ambassadors spent their time examining the results of various ACP-EEC committees and subcommittees which examining the results of various ACP-EEC committees and subcommittees which had been looking at commercial cooperation, customs ques-

tions, sugar problems, industrial cooperation, and financial and technical cooperation.

In particular the ambassadors reached agreement on the definition of "force majeure" as applied under the sugar protocol (No. 3) of the Lomé Convention. In the field of customs cooperation the committee adopted a draft decision for the ACP-EEC Council of Ministers on derogations from the rules of origin for certain textile products and tinned tunny from Mauritius.

The setting up of a joint working group to examine the effects of the Community's scheme for generalised preferences on trade between the ACP and the EEC should help to find solutions to any difficulties the ACP countries might encounter in this field.

Finally the ambassadors agreed that the accession of Djibouti to the Lomé Convention could be done by written procedure.

EUROPEAN DEVELOPMENT FUND

Lomé aid reaches ten figures

Nineteen months after the entry into force of the Lomé Convention, and following the financing decisions of the Commission of 28 October and 11 November 1977, the total amount of the fourth European Development Fund now committed is 1037 000 000 EUA.

As has happened on four previous occasions this year, it was decided to hold a group signature at the European Commission in Brussels on November 14, 1977. Cl. Cheysson, Commissioner for Development signed for the Community, and the ACP countries concerned were represented by their Ambassadors, 18 conventions were signed totalling 96 544 000 EUA.

The following special features are worth noting:

a) *regional projects.* Taking advantage of the 10% of the EDF allocated for regional cooperation, 4 regional projects were signed totalling 22 million EUA (22.8% of the total). Two projects involve bilateral cooperations (Botswana-Swaziland, Rwanda-Burundi) and two concern regional organisations OCAM and the African Groundnut Council.

b) *Southern African region.* There are also a number of projects in ACP countries in the Southern African region, amounting to 23.6 per cent of

the total. These include in particular a contribution of 12 450 000 EUA to the construction of a canvas mill at Morogoro in Tanzania, and of 3.5 million EUA to the University of Botswana and Swaziland.

The breakdown by sector is follows:

— 1 road project totalling 34 million EUA, 35.2% of the total (this is in fact 2 projects, one national in Rwanda, one regional between Rwanda and Burundi).

— 8 agricultural projects, totalling 27 299 000 EUA, 28.3% of the total;

— 3 industrial projects totalling 15 700 000, 16.3% of the total;

— 4 social equipment projects, totalling 13 745 000 EUA, 14.2% of the total;

— 1 electrical energy infrastructure project totalling 3 900 000 EUA, 4% of the total.

These conventions are notable for the amount financed by direct grant: 12 projects (including all the regional projects) with a cumulative total of

66781000 or about 72% of the total, projects, totalling 23713000 benefit from loans on special terms, and two projects combine grants (2836000 EUA) and special loans (3214000 EUA).

Botswana

Assistance to small- and medium-sized enterprises

EDF contribution: 2550000 EUA

The Community's financing concerns three interrelated projects which constitute the principal elements of Botswana's integrated programme for the development of small-scale enterprise and the introduction of appropriate technologies. These projects involve:

— the development of serviced industrial land in up to 14 villages over the period of the current National Development Plan (1976-81); estimated cost: EUA 1425000 to be financed as a grant;

— the establishment of a small technology centre to promote the application of technologies adapted to local needs, namely to small industries in the industrial estates; estimated cost for initial 3 years EUA 475000 to be financed as a grant;

— the opening of a line of credit to the National Development Bank for loans to small entrepreneurs, namely those located in the industrial estates.

It is estimated that the project will cost 650000 EUA and it is to be financed by the EEC in the form of a loan on special terms (duration: 40 years, with a 10-year grace period; interest rate: 1%).

This programme falls within the industrial cooperation arrangements under the Lomé Convention. It will be closely linked with all other measures taken by the Botswana government for the development of small industry, such as the Botswana Enterprise Development Unit Programme, the Brigades Movement and the sub-commercial programme of the Botswana Development Corporation. Furthermore, the proposed link-up between infrastructure development, technology promotion and investment financing takes full advantage of the possibilities of the Lomé Convention as regards the integration of different types and instruments of assistance into a single programme.

This new financing brings the EEC's total commitments for Botswana under the fourth EDF to nearly 7 million EUA.

Ivory Coast

Village water engineering (first instalment)

EDF contributions: 1900000 EUA

This project is concerned with the first phase of a programme to provide water for human consumption in the northern region of Ivory Coast. It comprises:

— the construction of 177 water supply points (wells and boreholes) equipped with hand pumps in the Fer-kessédougou, Boundiali and Korhogo departments. This work will be carried out under contract by the State-owned Ivory Coast company FOREXI:

— technical assistance in the form of an engineer with technical and administrative duties and a civil engineering works supervisor.

The structure built under the project will be managed by SODECI (Société de Distribution d'eau de Côte d'Ivoire), which is responsible for all the drinking water distribution systems in Ivory Coast.

The total cost of the project is estimated at 2080000 EUA, to be financed by:

— a 1900000 EUA grant from the resources of the fourth EDF;

— a 180000 EUA contribution by Ivory Coast from its own resources, for the purchase of pumping systems and installation at the water holes.

The project is part of the National Water Engineering Programme, which the Ivory Coast Government has been implementing since 1973.

It should be noted that the EEC has already provided 5.2 million EUA from the first EDF for such projects to provide water for human use in Ivory Coast and 2.4 million EUA from the second EDF.

This new financing brings the total amount allocated to the Ivory Coast under the Lomé Convention's fourth EDF to 13 000 000 EUA.

Ethiopia

Low-cost housing development
EDF contribution: 4400000 EUA

In recent years the rate of urban population growth has accelerated significantly, mainly owing to the hardships suffered by the rural population during the drought period in Ethiopia.

In these circumstances, the new regime has been giving increased attention to the building of subsidized

housing and to the conditions of the poorest sections of the urban population.

The project covered by the Financing Agreement forms part of this plan and concerns the construction of 3000 houses located in 23 intermediate towns, to provide approximately 15000 persons from the low-income groups in urban areas with a decent shelter.

This project should induce a nationwide breakthrough in low-cost housing construction by demonstrating the possibility of building, on a decentralized basis, improved dwellings adapted to local resources and skills. It should also help reduce the imbalances which have characterized in the past the distribution of social facilities between the capital and secondary urban centres (where the population varies between 20000 and 60000 per town).

The total cost of the project is estimated at 4.76 million EUA. The EEC is contributing 4400000 EUA in the form of a grant from the fourth EDF. Part of the remainder will be covered by the national budget and the rest provided by contributions from the future owners in the form of labour.

The EDF's share will cover the cost of the materials, vehicles and labour used and the cost of setting up the site and services, the latter being supplied by specialized government bodies and local authorities.

This new financing brings the total amount allocated to Ethiopia under the Lomé Convention to 47 187 000 EUA.

Mali

Extensions to the Sikasso lowland rice-growing scheme
EDF contribution: 1 186 000 EUA

The project is a follow-up to an initial series of experiments (financed by the EEC from the second EDF), which were later expanded into large-scale schemes (financed by the EEC from the third EDF) for the cultivation of rain-fed and lowland rice.

It involves developing an additional area of 2200 ha by carrying out small- and medium-scale water engineering works and developing areas served by large reservoirs (Kléla region). It is also intended to continue the scheme for intensifying production by spreading modern rice-growing techniques that have already been tested.

This project is part of the much larger southern Mali integrated development programme, which involves financing from many sources (IDA,

FAC, CCCE, ADB, ABEDIA and the Malian Government itself). This programme is one of the most important elements in the country's rural economy.

The cost of the extensions will be covered by a grant from the EEC amounting to 1186000 EUA out of the fourth EDF.

This new financing brings the total amount allocated by the EEC to Mali under the fourth EDF to over 31 million EUA.

Mauritius

Industrial promotion programme
EDF contribution: 700000 EUA

The 1971-75 and 1975-80 Economic Development Plans of Mauritius have concentrated on the industrialization of the country, with particular view to:

— encouraging savings and industrial ventures by the domestic private sector,

— improving infrastructure in areas where bottlenecks are expected,

— boosting the productivity of firms,

— pursuing a rational and effective policy of industrial promotion abroad by diversifying the country's trading partners.

The project financed by the EEC is part of this programme. It concerns the financing, by a grant of 700000 EUA, under the fourth EDF, of an industrial promotion programme consisting of:

— a number of information, contact and reception schemes aimed at attracting European promoters to the free zones in Mauritius; it may be underlined that these zones were created in 1970 by the "Export Processing Set", which provides foreign investors with safeguards in respect of the security of their investments, stable conditions for setting up business and a large degree of flexibility in establishing and managing their ventures;

— the implementation of domestic back-up operations featuring inter alia the setting up of a Promotion Centre.

This new financing brings to 10691000 EUA the total amount of the credits already granted by the EEC to Mauritius under the fourth EDF.

Senegal

Fruit production
EDF contribution: 4563000 EUA

The project constitutes the initial phase of a comprehensive national plan for developing fruit-growing in

Senegal. The objectives of this project are to make good, through national fruit production, the country's shortfall in fresh fruit and fruit products, and to export certain products. The study of this plan was financed by the EEC from the third EDF.

The crops are mangoes, citrus fruits, avocados, bananas and pineapples. The areas involved are the Niayes (north coast of the country) and the Lower Casamance.

In addition to reducing imports and improving the population's diet, the project is also intended to provide additional income for the small farmers, who will benefit from the cooperative farming of the production units.

The total cost of the project is estimated at 5478000 EUA. The EEC is contributing 4563000 EUA in the form of a special loan from the fourth EDF (40 years, with a 10-year grace period and an annual interest rate of 1%). The remaining cost of the operation, 915000 EUA, will be financed by Senegal.

The expenditure on infrastructure and equipment will in principle form the subject of international invitations to tender. The payments for expenditure on grafting, nurseries and planting will be made by the authorities after approval of annual estimates.

A project for the improvement of the rice fields and banana plantations in Casamance was financed by the Community under the second EDF for an amount of 1829000 EUA.

The new financing raises to 35075000 EUA the total funds granted by the Community to Senegal from the fourth EDF.

Sudan

Tea Plantation in the Equatoria Province
EDF contribution: 8350000 EUA

Sudan is a major tea importer. With an import volume of 17000 t in 1976, it occupied second place among the tea-importing countries.

Under the recently approved national six-year plan, the Sudanese Government therefore decided to give priority to this crop in order to replace part of this large volume of exports, which cause major outflows of foreign exchange, and in order to meet the local demand for better quality tea. To that end, it devised an overall project for the establishment over 10 years of a 1000 ha tea plantation in the eastern Equatoria Province of the southern region of Sudan.

The project financed by the EEC forms part of the first phase (4 years) of this programme and includes: the creation of 275 ha of tea plantation, a factory with a capacity of 450 t of made tea p.a., a 23 km-long access road, plantation roads, buildings and staff houses, the necessary vehicles and equipment, and technical assistance.

The execution of this first phase will involve expenditure of 8350000 EUA, which the EEC will finance in its entirety by a grant from the fourth EDF. It should enable 450 t of made tea to be produced per annum. It will also contribute significantly to the evolution of a more balanced regional economic development within the country, and will facilitate other tea plantation projects which the Government intends to carry out in the southern region.

International invitations to tender will be issued for important supplies and works (factory equipment, vehicles, agricultural machinery and equipment, fertilizers); there will be an accelerated tendering procedure for the buildings; the agricultural investment and maintenance works and the construction of the access road and supply of clonal cutting will be undertaken by direct agreement contract; restricted invitation to tender will be resorted to in the case of smaller-scale supplies and works.

This new financing will raise to 19137000 EUA the total amount already granted by the EEC to Sudan from the fourth EDF.

Tanzania

Morogoro Canvas Mill
EDF contribution: 12450000 EUA

The Tanzanian Government's industrial development strategy aims at increasing the processing of local raw materials intended for the domestic and foreign markets, by encouraging in particular projects which have a high foreign exchange earning potential.

The Morogoro industrial complex, an urban centre with 40000 inhabitants situated 180 km west of Dar es Salaam represents, with its four factories which are planned or under construction (tannery, canvas mill, shoe factory, leather goods factory) one of the main projects reflecting this strategy.

The project involving EEC financing concerns the building of the canvas mill, with an annual production capacity of 8.8 million m².

The total cost of the project is estimated at 33.3 million EUA:

— 38% will be financed from national resources;

— 8% will be financed from credit granted by the suppliers;

— the remaining 54% will be provided by the EEC in the form of risk capital administered by the European Investment Bank (4.9 million EUA), a grant already accorded to finance the studies (550 000 EUA) and a special loan (12.45 million EUA).

The financing agreement covers the granting of a special loan to the Tanzanian Government from the fourth EDF for a period of 40 years, with a 10 years' grace period, at an annual interest rate of 1%. This loan will be onlent, on different terms, to the National Development Corporation (NDC), which is a State holding and the main organization responsible for public enterprises in the industrial sector and which will hold the shares of the company set up to manage the mill. This company will in turn receive a loan from the NDC.

International invitations to tender will be issued for the building of the mill.

This new financing raises to 54 477 000 EUA the total amount already accorded by the EEC to Tanzania from the fourth EDF.

Zambia

1. Construction of ten Health Centres EDF contribution: 1 345 000 EUA

The purpose of the project is to provide small hospitals for certain rural regions where such health facilities are currently lacking. This involves:

(1) the construction and equipment of ten Health Centres in the different regions of the country; each centre will have a capacity of 12 beds and comprise two hospitals units, technical services (labour ward, examination and treatment room, dispensary) and general services;

(2) the construction and equipment of thirty houses (three per centre) for the staff of the ten Health Centres.

The siting of the Centres—sites were chosen by agreement between the national and provincial health authorities—takes account above all of the local epidemiological problems and the lack of health facilities or inaccessibility of existing facilities.

The project corresponds to the priority objectives in the health field, set by the country's Third Development Plan; that is, it reinforces the basic hospital and health facilities in rural areas, develops the system of preventive care and steps up the medical protection for mothers and children.

The cost of the project is estimated at 1 345 000 EUA and it will be financed by a grant from the fourth EDF.

The construction work will be carried out by a private firm following an accelerated invitation to tender. The supply of the furniture and equipment will be the subject either of a restricted invitation to tender, divided into several lots according to type, or of a contract awarded on the basis of an estimate.

2. Kawambwa Tea Scheme

EDF contribution: 3 100 000 EUA

The Kawambwa Tea Scheme, started in 1969, and since 1974 operated by the Rural Development Corporation, has as its main aim the production of made tea to contribute to the self sufficiency of Zambia.

The objective of EEC participation in the scheme is to consolidate the nucleus estate at 800 acres, and to expand the capacity of the tea factory so as to accommodate the expected green leaf production over the next five years.

The total cost of the project over that period is estimated at 6.2 million EUA. The EDF contribution will be 3.1 million EUA, in the form of a loan on special terms for a duration of 40 years, with a 10-year grace period and at an annual interest rate of 1%. The Zambian Government is supplying the balance.

The EDF's share comprises financing equipment (modernization of the factory, irrigation, accommodation), supplies (fertilizer, vehicles) and technical assistance.

An international invitation to tender will be issued for the factory equipment and a restricted invitation to tender for the irrigation equipment and vehicles; the construction work will also be carried out following a restricted invitation to tender. The technical assistance will be provided by a specialized company chosen by the Government from a short list presented by the Community.

The expected effects of the project are:

- a reduction in tea imports, thus saving foreign currency;
- the creation of jobs in a particularly poor region;
- the creation in Zambia of a self-financed tea industry.

These two new financings, totalling 4 445 000 EUA, bring the amounts already allocated to Zambia by the EEC under the Lomé Convention to 21 000 000 EUA.

African Groundnut Council

Regional research project on aflatoxin
EDF contribution: 3 000 000 EUA

The African Groundnut Council, founded in 1962, groups together six important groundnut-producing countries: the Gambia, Mali, Niger, Nigeria, Senegal and Sudan. Its task is to promote sales, improve the quality and increase the quantity of the products.

The project financed by the EEC consists of a series of studies and experiments aimed at helping to develop exports of groundnuts for oil and groundnut oilcake from the member countries of the organization to Western Europe and to make a start on setting up industrial units to produce animal feed based on groundnut oilcake in order to meet the requirements of intensive stock-farming activities.

To this end, the project comprises: a sales promotion programme, a study for the construction of units to produce animal feed, the equipping of laboratories to monitor the aflatoxin content of groundnut-based products and the setting-up of two pilot industrial units for the detoxification of oilcake.

Since the African Groundnut Council and its member countries are providing a share of the expenditure estimated at 1 384 000 EUA, the cost of the project to the EEC amounts to 3 000 000 EUA and will be drawn from the fourth EDF in the form of a grant as part of the promotion of regional cooperation under the Lomé Convention.

Open international invitations to tender will be issued for the infrastructure works and the supply of equipment. Should there be a valid reason for expediting the procedure, however, or should the quantities be small, invitations to tender by accelerated procedure could be issued or mutual agreement contracts awarded. The studies will be carried out under mutual agreement contracts.

Botswana and Swaziland

University of Botswana and Swaziland
EDF contribution: 3 500 000 EUA

The University of Botswana and Swaziland (UBS) founded in 1975, consists of two separate Colleges, one in each country, teaching the following subjects: humanities, education, economics and commerce, law, social studies, science and agriculture. The purpose of UBS is to train the urgently needed high-level manpower for the two countries.

At both Colleges, the available physical facilities are substantial. There are, however, serious bottlenecks, which the College extension programmes, financed by Canada, the EEC, the United Kingdom and other donors, will remove.



Dr S.S. Nxumalo, minister for industry, mines and tourisme, signs for Swaziland

The project financed by the EEC comprises the following items:

— Botswana: classrooms, a students' hostel, research laboratories, offices, students' union building and site works;

— Swaziland: classrooms, science and other special teaching rooms, offices, kitchen and refectory, auditorium, a students' hostel, staff accommodation and site works.

The estimated cost is 1.75 million EUA per College, which will be covered by a grant from the fourth EDF.

Invitations to tender by accelerated procedure will be issued for the works. International invitations to tender, divided into several lots according to type, will be issued for the supply of the equipment and instruments. A restricted tendering procedure or mutual agreement contracts will be used to obtain any supplies that can be produced locally.

This regional project is of the greatest importance for the two countries, seen in the light of aid from the EEC to the independent states of southern Africa.

Rwanda and Burundi

Strengthening and asphaltting of the Kigali-Butare-Kayanza Road
EDF contribution: 34 000 000 EUA

This project provides for the strengthening and asphaltting of the Kigali-Butare-Kayanza road (172 km), which is part of the main highway linking the capitals of Rwanda and Burundi (total distance: 302 km). The aim is to replace the existing earth road, which

is often impassable in the rainy season, with an all-weather highway which will be better suited to the requirements of both the present and the future traffic load.

The purpose of the project is three-fold:

(1) to improve access to the southern regions of Rwanda and thus satisfy a major prerequisite for effectively exploiting the country's agricultural potential;

(2) to facilitate trade between Burundi and Rwanda by reducing transport costs and by enabling traffic to flow freely during the rainy season;

(3) to link the Kigali-Mombasa route (road/rail) to the Bujumbura-Dar es Salaam route (boat/rail) and so reduce each landlocked country's dependence on a single link with the Indian Ocean.

The cost of the Kigali-Butare section is 23 000 000 EUA and will be financed by the EEC as a national project for Rwanda; the cost of the Butare-Kayanza section is 11 000 000 EUA and will be financed by the EEC as a regional Rwanda-Burundi project. The total financing requested from the EEC is therefore 34 000 000 EUA and it will take the form of a grant from the fourth EDF.

The technical studies for the Kigali-Butare section and the Butare-Akanyaru section (frontier) were financed under the third EDF; for the Akanyaru-Kayanza section, the Burundi Government made use of existing studies.

The work will be carried out by contract following international invitations to tender issued after a preselection process. There will, in principle, be three invitations to tender, one for each section, to be issued simultaneously.

VALUE OF THE EUA

- 1 European unit of account (EUA)
- = approximately 280 francs CFA
- = approximately 1 pula (Botswana)
- = approximately 2.34 birr (Ethiopia)
- = approximately 560 francs (Madagascar)
- = approximately 7.4 Mauritius rupees
- = approximately £0.45 (Sudan)
- = approximately Sh 9.4 (Tanzania)
- = approximately 1 kwacha (Zambia)
- = approximately 0.98 Swazi emalangeni
- = approximately 101.7 Burundi francs
- = approximately 103.1 Rwanda francs
- = approximately £0.65 sterling
- = approximately 5.75 French francs
- = approximately US\$1.19



Mrs Mathe, ambassador to the EEC, signs for Botswana

Countries of the OCAM

Inter-State School of Science and Veterinary Medicine (EISMV), Dakar
EDF contribution: 450 000 EUA

In order to remedy the lack of a veterinary faculty in the French-speaking area south of the Sahara and to provide training for stock-rearing managers in an African establishment, in 1967 the countries concerned decided to set up temporary Institute in Dakar, and this led in 1971 to the establishment, decided by the Conference of OCAM Heads of State and Government, of an Inter-State School of Science and Veterinary Medicine (EISMV).

The objective of the project financed by the EEC is:

(1) firstly, to provide this School, which is at present operating in the buildings of the Faculty of Science in Dakar, with the premises for general and clinical teaching and the laboratories for practical work and research which it needs;

(2) secondly, to ease the accommodation situation of a number of non-Senegalese students by the building and equipping of a hostel.

The architectural and technical programming studies were financed out of the third EDF.

The cost of the construction project is evaluated at 450 000 EUA: it is financed by the EEC by means of a grant from the funds of the fourth EDF which are earmarked for regional cooperation.

There will be an international invitation to tender for the construction work and the supplementary installation

work. The construction work on the student accommodation will be carried out either by contract following an open invitation to tender or by direct labour. The supply of furniture and fittings will be the subject of an international invitation to tender divided into several lots according to the nature of the equipment.

Apart from the 18 conventions signed under the 4th EDF in Brussels on 14 November the Commission has also approved the following financing agreements:

Kenya

Commercial promotion project. EDF contribution 400000 EUA.

This project aims to improve the promotion of Kenyan exports through the strengthening of the Kenya External Trade Authority (KETA) through:

- the provision of a trade promotion expert;
- the organising of training seminars;
- by support for KETA's programme of foreign trade missions.

The total cost of the project will be covered by a grant of 400000 EUA from the 4th EDF.

Uganda

Five year training programme (1976-1980). EDF grant of 2500000 EUA.

This programme will provide scholarships and grants for studies in the fields of agriculture, technology, and more generally, activities concerned with social and economic development. They will be available to teachers as well as students.

Lesotho

Maseru industrial zone. EDF contribution 1837000 EUA.

This project will extend the industrial zone of Maseru by 27 hectares and provide the necessary infrastructure. The Lesotho government attaches great importance to this project which should contribute to the success of the employment and industrialisation policies undertaken by the government. The total cost of the project, estimated at 1837000 EUA will be covered by an EDF grant.

Sierra Leone

Credits made available to the National Development Bank (NDB); EDF contribution 1000000 EUA.

The NDB, created in 1968, works on commercial principles. It grants credits on the medium and long term, and helps enterprises with promotional and other activities. The EEC contribution in the form of a loan of 1000000 EUA under special conditions from the 4th EDF will enable the NDB to provide loans to small and medium-sized firms in Sierra Leone.

The Gambia

Development of artisanal fishing. EDF contribution 1295000 EUA.

Within the priorities established by the Gambian government, this project aims to improve fishing equipment and commercial infrastructure as well as introduce new fishing techniques. The cost, estimated at 1295000 EUA, and to include the provision of experts and professional training schemes, will be met by a grant from the 4th EDF.

ACP Micro-projects

This global credit of 2.5 million EUA in the form of a grant from the 4th EDF will speed up the provision of funds to the ACP countries which included microprojects in their outline (indicative) programmes. Such funds are aimed at microprojects in the rural areas, and both the local communities, and their government authorities will contribute. The EEC's contribution is therefore on a partial basis. □

EIB

Global loan to aid industrial development in Kenya

Under the terms of the Lomé Convention, the European Investment Bank has granted a global loan equivalent to 5 million units of account(1) to the Industrial Development Bank (IDB) in Kenya.

The funds will be used to help to finance medium-scale industrial projects selected in agreement with the EIB.

The loan has been made available for 11 years at an interest rate of 5%, after deduction of a 3% interest rebate drawn from the resources of the European Development Fund, as provided for under the Convention.

The Industrial Development Bank was set up in 1973 to assist the growth

of manufacturing industry. Its shareholders are the Kenya Government and three state-owned bodies, the Industrial and Commercial Development Corporation, the Kenya National Assurance Company and the National Bank of Kenya.

At mid-May 1977 it had approved investments in 36 projects for a total of more than 250 million Kenya Shillings.

This is the second such global loan in Kenya; last year the EIB provided the equivalent of 2 million EUA to the Development Finance Company of Kenya Ltd.

Global loan to aid industrial development in Malawi

Under the terms of the Lomé Convention, the European Investment Bank has granted a global loan equivalent to 3 million units of account(2) to the Investment and Development Bank of Malawi (INDEBANK).

The funds will be used to help to finance small and medium-scale industrial projects selected in agreement with the EIB.

The loan has been made available for 12 years at an interest rate of 5.05%, after deduction of a 3% interest rebate drawn from the resources of the European Development Fund, as provided for under the Convention.

INDEBANK was established in 1972 on the initiative of the Malawi Government; its present shareholders are the Agricultural Development and Marketing Corporation, a statutory body in Malawi, and three development finance agencies of EEC Member Countries: the Commonwealth Development Corporation (United Kingdom), the Deutsche Entwicklungsgesellschaft (German Development Company) and the Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden (Netherlands Finance Corporation).

At end June this year, it had invested about Kwacha 8.7 million in a wide range of projects, which involve creation of an estimated 4000 jobs.

Finance for an industrial development in Zaire

Under the terms of the Lomé Convention the European Investment Bank is providing Société Financière de Développement (SOFIDE) in Zaire with finance totalling almost 1.2 million units of account(3).

This is made up of a 15-year subordinated loan (4) for 1096000 EUA at 5.5 % p.a., which will enable SOFIDE to contribute towards expanding a cement-works in Shaba, and a participation worth 100000 Zaires (about 102000 EUA) which the Bank is taking on behalf of the EEC in SOFIDE's latest capital increase.

The industrial project in Shaba has been given high priority by the Zaire Government in its plans to strengthen the country's economy.

These operations are financed from a sum set aside under the Lomé Convention for various risk capital operations, the management of which is entrusted to the Bank.

Between the time when it was created in 1970 and the end of 1976, SOFIDE had conducted 140 financing operations, mainly in support of manufacturing industry. In 1971 it received a loan from the EIB for 1.6 million EUA under the second Yaoundé Convention.

First EIB loan for Caribbean overseas countries and territories

The European Investment Bank has made available to the Caribbean Investment Corporation (CIC) a venture fund equivalent to 1 million units of account (5).

The CIC will utilize this fund for its normal operations, i.e. for equity investments in small and medium sized industrial, agro-industrial and tourism enterprises located in less developed countries (6) of the Caribbean Community (CARICOM).

The venture fund is drawn from resources set aside under the Lomé Convention and the subsequent decision by the Council of Ministers concerning Overseas Countries and Territories for various types of risk capital operations to be handled by the Bank. It has been granted in the form of a conditional loan bearing an interest rate of 2 % p.a.; repayment will be scheduled according to the profitability of the investments the CIC makes, subject to a maximum period of 25 years.

The Corporation was created in 1973 as a regional institution among the Member States of the Caribbean Community with the cooperation of the Caribbean Association of Industry and Commerce. The shareholders are the Member States (60 %) and private industrial, commercial and financial interests in the region (40 %).

This is the EIB's first operation in the Caribbean for Overseas Countries and Territories linked to the European Economic Community.

Loan for canvas mill in Tanzania

Under the terms of the Lomé Convention the European Investment Bank is to provide 4.9 million units of account towards the cost of establishing a canvas mill at Morogoro, 180 km west of Dar-es-Salaam in Tanzania.

The funds will enable the National Development Corporation, which will wholly-own the mill, to finance 40 % of its equity contribution, the remainder coming from its own resources. The state-owned NDC is the country's foremost industrial holding corporation with majority interests in more than 20 enterprises.

When in full production, expected in 1983, the mill, which forms part of an integrated industrial estate, will produce about 8.8 million m² of canvas per year and will provide some 770 jobs. Over half the canvas will be used locally to manufacture shoes (mainly at another factory on the estate), tyre cord and made-up goods mostly for the home market; the rest will be exported as loomstate or dyed and finished fabric.

The finance is provided in the form of a conditional loan at an interest rate of 2 % p.a., drawn from resources set aside under the Lomé Convention for various types of risk capital operations to be handled by the EIB; the term of the loan is 20 years, with provision for earlier repayment linked to the profitability of the mill. Other Community finance is also being provided from the resources of the European Development Fund.

This is the EIB's second operation in Tanzania; in March this year, also using risk capital resources, it provided assistance worth 2.5 million EUA to the Tanganyika Development Finance Company Limited. □

(1) 1 EUA = 9.49 K Sh.

(2) 1 EUA = 1.035 Kwacha.

(3) 1 EUA = 0.98 Zaire.

(4) Repayable only after settlement of prior-ranking loans.

(5) 1 EUA = 3.086 East Caribbean dollars.

(6) The less developed member countries are: Antigua, Belize, Dominica, Grenada, St. Kitts-Nevis-Anguilla, St. Lucia, St. Vincent.

ACP BANANAS

Robert Naah in Brussels

Robert Naah, Vice-minister for economic affairs and planning of Cameroon, discussed export difficulties and economic recovery during a visit to Brussels in November with Lucien Outers, the Belgian minister of cooperation, and Claude Cheysson, the EEC's development Commissioner. Much of their discussions centred on banana exports to the EEC and "The Courier" asked the minister what aspects of the problem he had discussed.

— The problems raised by Mr Outers, as president of the EEC's Council of cooperation ministers and Mr Cheysson dealt essentially with the application of Protocol No 6 of the Lomé Convention. This protocol clearly defines the relationships between the Community and the ACP banana producer and exporting countries. Its objective was to maintain the ACP advantage on traditional markets, to encourage access to new markets and to implement measures to stimulate investment, production and marketing.



The taste of ACP bananas deserves to be better appreciated in Europe

The ACP banana exporting countries regret that since the Lomé Convention came into force the implementation of Protocol No. 6 has made no headway.

This situation led the Committee of ACP Ambassadors to submit a memorandum in March 1977 explaining the deficiencies in the application of the protocol and putting forward measures to rectify the position.

The ACP countries find, in fact, that they are squeezed out of traditional markets and are the victims of unfair competition on new markets.

During the meeting which took place in Douala in July 1977, the ACP banana exporting countries made a thorough analysis of the present situation. They came to several conclusions.

Firstly in 1976 total banana imports by the EEC countries reached nearly 1900000 tonnes; in the same year the ACP countries sold to Europe only about 330000 tonnes, i.e. nearly 17% of the Community consumption. Furthermore the ACP countries have only succeeded so far in exporting to 3 member states (France, Britain and Italy) out of the 9.

Finally it was realized that the *laissez faire* policy applied on other markets does not help ACP exporters who have to compete with multinational corporations. These corporations are extremely powerful and have enormous assets at their disposal to integrate the banana industry, from production through to consumption.

To defend their interests and in particular to encourage their integration on markets where competition is strong, the ACP banana exporting countries have decided to set up immediately a common organization. The talks which I had on this subject with European officials are very encouraging. On one hand, the Community has committed itself against dumping, and on the other, the justice of the ACP countries' case will now be taken into account.

It seems certain therefore that in the future the ACP countries will find real Community support in defence of their interests.

► *The Europeans level 3 criticisms at the ACP countries involved in the banana industry. Firstly it is said that a certain apathy exists in the ACP countries' trade policy which handicaps them when they try to compete with the dynamism of Latin-American multinational corporations which control the European banana market. Secondly there is the difficulty of maritime transport: for example no shipping between Mogadiscio, Douala or Abidjan and*



Robert Naah, deputy minister for economic affairs and planning, with Claude Cheysson, the EEC's development commissioner

Bremen in Germany. And finally the high price of ACP bananas, for example \$ 200 tonne (FOB) against \$ 160 (free on rail) paid by the Germans for South American bananas. How would you reply to these criticisms?

— Most remarks made by the Europeans to ACP exporters are only justified in the context of the present practices of the multinational corporations.

Whenever it is a question of quality, of retail prices or trade policy, all the criticisms are based on experience in the markets which are dominated by transnational corporations. Can it be said that the French consumer is wealthier than the German or the British consumer cares less about quality less than the Belgian?

From the ACP point of view, present handicaps are the unique result of intensive advertising carried out by multinational corporations and do not stem from real factors in the banana trade.

As far as the factors determining price are concerned, the ACP countries inevitably find themselves in an unfavourable position compared with multinational corporations, which have an integrated organization and profit from

economies of scale. The ACP countries on the other hand are obliged to charter ships and to use ripening depots which belong to multinational corporations or their subsidiaries. It is easy to understand the effect on prices from the practices the ACP countries are subjected to.

► *As far as Cameroon is concerned, what are the possibilities of creating new banana plantations in this country?*

— Present banana production amounts to 80000 tonnes per year. It exceeded 120000 tonnes in 1963. This fall resulted from numerous difficulties Cameroon experienced in exporting, difficulties which meant abandoning several plantations.

The present plan which aims to give a new impetus to the banana industry will push the production level to 100000 tonnes in 1980.

However in the light of the availability of land suitable for banana production, it is planned to foster the development and improvement of banana production in the Cameroon in the near future insofar as marketing possibilities allow. □

EEC COUNCIL

EEC development ministers met in Brussels on 28 November 1977 under the chairmanship of Lucien Outers (Belgium). It reached decisions on a number of development questions.

The CIEC

At the final ministerial session of the CIEC the developed countries agreed on a special action programme of 1 000 million dollars to help meet the immediate needs of the low-income countries.

The Community contribution to this programme amounts to 385 million dollars which the Community has chosen to pay to a special account of the International Development Association (IDA).

The Council agreed on the brief to be given to the Community representatives for the negotiation of the agreement to be concluded with the IDA on the use of the Community contribution.

This Council decision will enable the Community contribution to be put to rapid use in accordance with the purpose of the special action, which is to give prompt assistance to a number of particularly needy countries.

The bulk of the Community contribution will go to developing countries with a GNP per capita of not more than 280 dollars(1).

EEC generalized preferences for 1978

After consulting the associated states concerned and the ACP countries the Council adopted the generalized preference scheme for 1978.

The new offers made by the Community, for 1978, concern mainly the optimum use of the preferences already granted by the Community, bearing in mind the substantial and systematic improvements granted over previous years and the disquieting developments in the economies of the Community member states. Overall, the amount of trade covered (possible preferential imports) should total 5.1 thousand million UA for industrial products and 1.3 thousand million UA for agricultural products.

(1) 23 countries in Africa, 12 in Asia and one in the Caribbean.

Whilst the overall offer for industrial products (chapter 25.99 of the CCT) is only slightly up on that for 1977, the Council has decided on a significant improvement to facilitate imports by raising to nine the number of tariff quotas for which a Community reserve is set aside. As regards textiles, the 1977 system has been extended for six months with no adjustment, owing to the state of crisis experienced by the textile industry in several Community regions and also to take account of the current textile negotiations. As regards jute and coir, complete suspension of tariff duty is scheduled as from 1 January 1978, following the agreements concluded with the exporter developing countries concerned.

The Council decided to extend preferences to Romania for a number of additional products by comparison with 1977.

For the LDC's the Council agreed to suspend, in 1978, the application of ceilings for all semi-sensitive and non-sensitive industrial products—with the exclusion, however, of textile products. This measure follows on from that decided in 1977 (suspension of cut-offs) and falls under the new approach in force since 1977 instituting special arrangements for the least competitive countries.

As regards processed agricultural products (chapters 1 to 24 of the CCT), the Council agreed to the inclusion of a

number of new products (in particular horses for slaughter and other horses, certain varieties of shellfish and mollusca, limes, mixtures of tropical fruit and certain fruit and vegetables, during winter).

Furthermore, the Council decided to renew all agricultural quotas (canned pineapple other than in slices, pineapples in slices, soluble coffee and cocoa butter, Virginia tobacco and other tobacco) and included a Community reserve to include in these quotas a proportion representing the Community reserve.

Relations with the non-governmental organizations (NGOs) specializing in development co-operation

The Council agreed to the procedure to be followed when using the Community appropriations set aside for co-operation with NGOs and to the general guidelines for the use of such appropriations.

The Council expressed satisfaction at the adoption of these texts, which provided a formal basis for continuing the extremely fruitful co-operation between the Community and the NGOs.

The Council expressed satisfaction at the adoption of these texts, which provided a formal basis for continuing the extremely fruitful co-operation between the Community and the NGOs.

Lise Østergaard, Denmark's minister responsible for development, during the Council meeting. This year Denmark will be in the chair of the Council until June 1978



Co-ordination and harmonization of national development policies in the EEC.

The Council made further progress at this meeting, in its discussions on the implementation of its resolution of November 1976 on the co-ordination and harmonization of the development co-operation policies of the individual member states and the Community as a whole.

Following up its resolution of 22 March 1977 on the co-ordination of emergency and humanitarian aid projects, the Council agreed to rules for organizing such co-ordination. This will involve close co-operation between a Commission co-ordinator and the EEC countries. The Council also took note of the list of contingency measures which may currently be invoked in the member states and the Community in the event of disasters. The resolution of 22 March thus becomes fully operational.

The Council agreed to seek more specific results and more significant progress in this sector by organizing meetings in an ad hoc framework, where two or more EEC countries consider it worthwhile to better co-ordinate their bilateral activities in a country or group of particular countries or when the implementation of joint projects is involved.

— to keep these meetings open to the other Member States and the Commission and to hold them on two levels:

— **in Europe**, where contacts will make it easier to create the necessary climate for co-operation, the political will being more easily expressed at that level;

— **on-the-spot**, where contacts will be directed more towards co-ordination of the projects of the member states and of the Community.

— to invite the Presidency to encourage such meetings, when two or more EEC countries or the Commission ask for it.

— to request the Commission to widen the scope of its co-ordination activities which should be organized in a more systematic way, whether on a sectoral level or in accordance with the country-by-country approach, since this role of providing information and stimulus is essential for a better harmonized development of the bilateral co-operation policies of the EEC countries.

The Council also noted an oral statement by Claude Cheysson, the EEC's development commissioner, on progress in the field of co-ordination and harmonization. It requested the Commission to widen the scope of its activ-

ities both on a sectoral level and in accordance with a country-by-country approach.

The Council also agreed—because of the importance of the subject and in order to be able to hold a thorough debate—to postpone until its next meeting its general discussion of the reciprocal implications of development co-operation policy and the other Community policies.

Aid for non-associated developing countries

A general consensus emerged in the Council in favour of the programme submitted by the Commission for the use of the 45 MUA appropriation entered in the 1977 budget for financial and technical aid for non-associated developing countries. These appropriations can now be committed by the Commission before the end of the year.

The Council worked out for the Commission a number of guidelines for the 1978 programme. The appropriations in the budget for this programme amount to 60 MEUA.

The Council also noted that there was now a consensus on the principle of establishing a basic regulation defining the framework for Community action in the matter of financial and technical aid for non-associated countries.

The debate enabled positions to be brought substantially closer on a number of outstanding questions. The Council, subject to application, if necessary, of the conciliation procedure with the European Parliament, proposed to conclude its debate at its next meeting so that the regulation could apply in time for the 1978 budget.

Food aid

Milk products

The Council—by an overwhelming majority—worked out a guideline to the effect that food aid in the form of skimmed-milk powder in 1978 should total approximately 150000 tonnes. It was agreed that the Budget Council would soon take the budgetary decision concerning the relevant appropriations to be entered in the 1978 budget.

Cereals

The Council agreed to instruct the Commission, within the framework of a new international cereals agreement, to negotiate an increase in the Community's contribution under the Food Aid Convention as part of an effort by

all donor countries, both traditional and potential, towards the world target of 10 million tonnes.

The Council instructed the EEC's Permanent Representatives Committee to examine the other matters outstanding in connection with the forthcoming negotiation of the Food Aid Convention.

Miscellaneous decisions

Trade policy

The Council adopted regulations:

— suspending the autonomous Common Customs Tariff duties for mechanically propelled aircraft of an unladen weight exceeding 15000 kg, falling within subheading ex 88.02 B II c), and for certain agricultural products.

— concerning Community tariff quotas or arrangements for the import of products originating in various countries of the Mediterranean for 1978;

— opening, allocating and providing for the administration of Community tariff quotas for Port wines, Madeira wines and Sebutal Moscatel falling within the heading ex 22.05 of the Common Customs Tariff, originating in Portugal (1978);

and decisions:

— on the conclusion of the agreement in the form of an exchange of letters renewing the trade agreement between the EEC and Argentina;

— authorizing the Commission to open negotiations for the conclusions of agreements extending the interim agreements between the EEC and the Maghreb countries.

The Council also adopted a regulation concluding the additional protocol to the agreement establishing an association between the EEC and Malta, which was signed on 27 October 1977.

EEC—Turkey Association

After recording the completion of the procedures required for the entry into force of the acts signed on 30 June 1973 in Ankara, extending the EEC-Turkey association to the three new EEC countries, the Council adopted the regulation concluding the EEC-Turkey supplementary protocol. This regulation together with the various texts signed at Ankara on 30 June 1973 will be published shortly in the Official Journal.

ooo

The Council adopted a regulation amending the general rules for granting aid for skimmed milk and skimmed-milk powder for use as feed. □

SIERRA LEONE AND GAMBIA

Visit by Cheysson

In mid-November, the EEC's development commissioner, Claude Cheysson, visited Freetown to sign a loan agreement for 1.3 million leones (approx. 1 m. EUA) for the Sierra Leone National Development Bank. During his visit Mr Cheysson met President Siaka Stevens, Vice-President Koroma, foreign minister Dr Abdullai, and other members of the Sierra Leone government. At a press conference Mr Cheysson confirmed that Sierra Leone would be receiving some Le. 42.5 m from the EDF. Most of the funds would be grants, he said, and only about 25% would be in the form of soft loans, repayable over at 1% over 40 years but with a 10 year grace period. He stressed that other EEC aid was available, mentioning as an example food aid. He also stressed the EEC's help for

regional cooperation, mentioning in particular finance for a hydro-electric project on the Mano river as part of the Mano River Union programme between Sierra Leone and Liberia. The community's development contribution in Sierra Leone, the commissioner added, had been determined by the Sierra Leone government itself. President Stevens welcomed the EEC-ACP relationship and called for greater flexibility in the development programmes.

In the Gambia, Mr Cheysson met President Jawara, the minister of finance and trade, Assan Musa Camara, and other government representatives. During the visit he signed an agreement for finance for the Gambia's fisheries project worth some 3.2 m dalasis. Mr Cheysson said the EEC would provide a special supply of rice to offset some of the effects of the drought, and he added that Stabex should also help to relieve some of the effects of the drought on export earnings. He said that the proposed Gambia seedbank could be studied in Brussels and spoke of plans to bridge the river Gambia. □

President Siaka Stevens (left) welcomes Claude Cheysson to State House



ETHIOPIA

Emergency food aid

At the request of the Ethiopian Government, the Commission, on behalf of the Community, has decided on an emergency allocation of 5000 t of cereals, to be charged against the general reserve for the 1977 programme.

This aid will be distributed to the victims of the very severe drought in the central and north-eastern provinces of the country.

The purpose of the aid is to bridge the gap between the end of the stocks and the new harvest in December/January, as in this period the country cannot import the quantities required to meet its food requirements. No additional expenditure is involved for the Community, as this operation is covered by programmes and funds already decided upon. □

EAST AFRICA

Krohn in Nairobi

Dr. Hans-Broder Krohn, special adviser to the EEC's commissioner for development gave a talk in Nairobi at the end of September, entitled "The Lomé Convention and Kenya: Perspectives and Prospects". The talk, organised by the Commission in conjunction with the Kenya Association of Manufacturers and the Kenya External Trade Authority, was held to mark the participation by the European Community for the first time in the Nairobi International Show. Mr. E. Mwamunga, minister of commerce and industry was in the chair.

Dr. Krohn spoke first of all about the main features of the Lomé Convention and its relevance to Kenya in the fields of trade, financial and technical cooperation and industrial cooperation. He then went on to talk of the prospects for renegotiation of the present convention. Lomé, he remarked, had been a compromise, and he expected that renegotiation would touch on those points where the compromise had been unsatisfactory; there would be a tough negotiation, a new compromise, he said.

ACP EMBASSIES

Two new ACP Ambassadors have formally presented their credentials to the presidents of the Council and Commission of the European Communities.

Sudan

The new Sudanese Ambassador is Mr Ali Ahmed Sahloul. He was born in Suakin, on the Red Sea Coast in 1930, and after secondary education went to Britain where he graduated from the London School of Economics in 1954. Apart from a brief period as Under Secretary in the Ministry of Planning in Khartoum in 1971-72, Ambassador Sahloul's career has been in the foreign service. He began with the post of third secretary in the New Delhi embassy in 1956 and then returned to Khartoum to work in the economic section of the Ministry of Foreign Affairs. He was head of the section from 1961-64. His initial posting as first secretary was to the Sudanese embassy in Cairo, and in 1965 he joined the Sudan mission to the United Nations as Deputy Permanent Representative. After five years in New York he was promoted to the rank of Ambassador, and served as Director of the Department for Socialist Countries in the foreign affairs ministry. In October 1972 he was appointed Ambassador to India, Indonesia, Sri Lanka and Malaysia, and in September 1975 became the Sudan's Permanent Representative to the United Nations office in Geneva and Consul General to the Swiss Confederation. He remained in Geneva until his appointment as Ambassador to Belgium and the EEC.

Zambia

Mr Windsor Kapalakonje Nkwani, who is 41, has been appointed as the new Zambian Ambassador to the EEC. He was born in Chama (Lundazi) near Zambia's border with Malawi, and after early secondary education in Zambia he went on scholarship to complete secondary school to Sarajevo, Yugoslavia. He remained in Yugoslavia to take an economics degree at the University of Zagreb, where he was president of both the International Students Club and the African Students' Union. He began his career as an economist in 1966, firstly in the Office of National Development and Planning and then in the Ministry of Development and Finance, where he rose to



From left to right, Mr Tyrrell, Chairman of the Kenya Association of Manufacturers, Dr Ouko, Kenyan minister for community affairs, Dr Krohn and Mr E. Mwamunga, Kenyan minister for commerce and industry

Thus he expected that the ACP countries would raise again questions of their agricultural products which compete with European products. There are also ACP countries which would like to see minerals and rubber included in the list of products covered by the Stabex scheme.

Lomé, he stressed, was not so much a "model" for the new international economic order, but a concrete step forward in the right direction. If this could be agreed then it was a basis for negotiation.

Among those who thanked Dr. Krohn was Dr. Ouko, formerly a minister at the East African Community, and now minister for community affairs in Kenya. Dr. Ouko paid tribute to Dr. Krohn's role as director general for development in the EEC commission, especially in the negotiations for the Lomé Convention.

Dr. Ouko also listed points in the convention which the ACP welcomed:

— the decision of the European Community to accord the ACP non-reciprocity,

— the inclusion of Stabex for the first time in any such agreement, permitting developing countries to plan in advance,

— the industrial cooperation chapter to complement ACP agricultural production. "It is not that we want aid less, we want trade more", he said, since trade is an everlasting opportunity,

— the comprehensive nature of the agreement which took two years to negotiate, proving that it is the spirit that counts on both sides.

As for the second convention, Dr. Ouko predicted that Stabex coverage, EDF procedures and rules of origin would be raised, as well as the effect of the generalised system of preferences (GSP) on the trade concessions in Lomé. □

LAGOS FAIR

The first Lagos International Trade Fair was held from 27 November to 11 December. There were fifty-seven participating countries (including eight of the member states of the European Community and fourteen ACP countries), and hundreds of Nigerian and foreign business exhibitors.

The fair site lies 30 km west of the centre of Lagos on the road to Badagry. It covers 305 hectares (800 acres), and includes four main two-storey covered exhibition halls as well as satellite buildings and an administrative bloc, an auditorium and an open-air area. It was constructed at an estimated 98 m Naira (124 m EUA) by the Yugoslav firm Energoprojekt.

At the opening of the Trade Fair, the Nigerian head of state, Lt. General Olusegun Obasanjo noted that the Lagos fair complex was the largest in Africa. After recalling that one of every four Africans today is a Nigerian and that Nigeria's gross domestic product ranks high in the league of economic activity in African states, he stressed that "unless we now lay the foundation for self-sustained development we would have great difficulty keeping and maintaining the lead".

After describing Nigeria today as a "trading post economy", the head of state said the primary objective of economic development in the country should be the qualitative transformation of the structure of the economy to create the capacity for the emergence of indigenous capital and innovative ability, and the application of the resultant material abundance. "When the Portuguese first made contact with our ancestors they gave mirrors, and other artifacts of early industrial establishments in Europe in exchange for spices, gold and other unprocessed goods. Today in exchange for our crude oil, cocoa and other primary products we receive television sets, stereo equipment, luxury cars and other finished products including machinery. The continuity in our disadvantage is obvious. We feed the countries of the world with unprocessed goods whose prices and thereby our returns are not determined by the logic of market forces. As a consequence our share of world resources and the quality of life of our citizens remain low relative to those enjoyed by economies which have an industrial sector propelled by indigenous capital and innovative ability".

To correct this state of affairs, he said "we must produce what we need,



Above ambassador Sahlool presenting his credentials and below ambassador Nkwani



become firstly Director of Planning and then Permanent Secretary. It was this post which he left to become Ambassador to Belgium and the EEC, his first foreign posting. During his career he has followed a number of post-graduate courses including one on project evaluation in Nairobi run jointly by the World Bank, the IDEP (the African Institute for Economic Development and Planning in Dakar) and the Economic Commission for Africa. He also attend-

ed two courses in the United States, firstly on the management of development projects at the Graduate School of Public and International Affairs, University of Pittsburg, Pennsylvania, and then a World Bank course on management of the national economy in Washington D.C. Ambassador Nkwani has also represented Zambia at numerous international conferences and seminars organised by such bodies as UNDP and IDEP. □

we must curtail our appetite for what we do not produce. To ensure this we have directed all efforts at laying the basis for the emergence of indigenous capital and innovative ability. We have embarked on the training of technical manpower on a scale hitherto considered impossible and we continue to push for the early realisation of projects in the heavy industrial sectors". The programme of import substitution which constituted the spearhead of "industrialisation" had so far not yielded satisfactory results. Although Nigeria bottled soft drinks, assembled trucks and other vehicles, the technology, processes and licenses essential for these products "do not belong to us and are controlled by others", he said.

The value of the Lagos Fair

The head of state concluded: "To the extent that this complex and this first Lagos International Fair contributes to improving our capacity to produce our needs it will be a worthwhile venture. To the extent that it will provide at our own cost a showroom for manufacturers from all over the world to make bigger sales which do not by any way free us from total dependence on the industrialised economies it would be of doubtful value to us".

The member states of the European Community took between them much more space than any other exhibitor. The United Kingdom took 9000 sq. metres outside, W-Germany took 5207 sq. metres outside and covered, France took 4839 outside and covered, Italy 2000 sq. metres outside, Belgium 954 sq. metres covered. Ireland, Denmark and Netherlands had smaller business information stands, and the Commission also had a small stand providing information on the Community, the Lomé Convention and what it can do for Nigeria. The total space of the Community was thus more than 22000 sq. metres. The fourteen ACP states present were Ivory Coast, Ghana, Senegal, Niger, The Gambia, Sierra Leone, Togo, Benin, Cameroon, Sudan, Swaziland, Botswana, Tanzania, Trinidad and Tobago. The Economic Community of West African States (ECOWAS) also had a special information stand, and all its member-states who participated were grouped together in one hall.

The Commission was represented at the opening ceremony by Dr. Raymond Appleyard, Director General of Scientific Information. While he was in Lagos he had contacts with the National Scientific and Technological Development Agency. □

GENERAL INFORMATION

THE COMMON FUND: STALEMATE IN GENEVA TALKS

The second round of the United Nations Negotiating Conference on a Common Fund was suspended on the night of Thursday, 1 December 1977 following a request from the developing countries of the Group of 77. In this article "The Courier" outlines what happened, recalls the issues involved, and takes a glimpse at what may happen next in an undertaking that has come to assume central importance in the ongoing North-South dialogue.

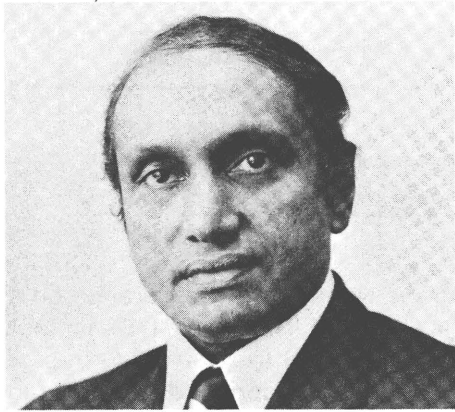
"Unfortunately this hope has not been fulfilled and we have not been able to reach any agreed conclusions despite all the hard work put in by all of us. This is indeed a pity and I cannot but share the disappointment which has been expressed this evening." Thus Conference Chairman, Ambassador Herbert Walker of Jamaica, in his concluding statement before he suspended the second session of the United Nations Negotiating Conference on a Common Fund in the evening of Thursday, 1 December 1977 in Geneva after nearly four weeks of work. The Common Fund had already taxed the skills and wills of negotiators from developing and developed countries through many a long day and night in different fora since the go-ahead for negotiation was given at UNCTAD IV in Nairobi in May 1976. Few observers present at the final plenary meeting of the Conference in Geneva would have dissented from Ambassador Walker's sentiments. His words echoed those pronounced by spokesmen of both developing and developed countries. This session of the Conference was intended to provide the basis on which precise drafting could begin. The reasons for its failure to do so are many and complex.

A brief flashback is necessary to grasp the problems besetting the Geneva negotiators—and thereby appreciate the scope and pitfalls of the Common Fund issue. From early on—and particularly at their January 1976 Conference in Manila—the developing countries of the Group of 77, largely espoused the concept of an Integrated Programme for Commodities and the Common Fund elaborated in 1975 by the Secretariat of the United Nations Trade and Development Conference (UNCTAD). This called for a global approach to and negotiation of the world commodity problem. A key difficulty in past attempts to stabilise commodities, said UNCTAD, was lack of finance. The

Common Fund would therefore provide the source of finance. Buffer stocks would be the main instrument. Other measures would also be required, particularly for commodities facing long-term economic and structural decline. This commodity programme, and the Common Fund in particular became the battle flag of the Group of 77 at Nairobi. To many developing countries it epitomised their idea of a new international economic order. The rigour of the Group of 77—despite genuine internal difficulties amongst them—in their defence of the Common Fund conceived as the central and principal source of commodity financing, at the latest Geneva negotiating conference, demonstrated the tenacity with which they hold to it both as a symbol and as an instrument of change.

The bulk of western industrialised countries experienced serious difficulties with this concept of the Common Fund from the outset. For several of them the commitment to negotiate which they undertook at Nairobi remained conditional. They were concerned that the UNCTAD scheme for an Integrated Commodity Programme could lead to a dirigistic and rigid world order in commodity trade; they emphasized the widely differing particularities in the production, nature and trade of individual commodities and were wary of global solutions. They hesitated above all to commit themselves to expenditure via the Common Fund without knowing what actions it would finance and how. Such knowledge—and agreement between producers and consumers most directly concerned—could come only through individual commodity negotiations. Yet the Common Fund, according to the Nairobi timetable, was to be negotiated before arrangements for individual commodities were due to have been negotiated.

Against this background in March 1977 the Common Fund negotiating



Gamani Corea, secretary general of UNCTAD

conference ran through its first four week session to a largely inconclusive result. In the closing stage of the March Conference the Community's Heads of State and government meeting in the European Council in Rome produced a glimpse of light, when they stated their view that there should be a Common Fund. Hitherto the Community as a whole had been unable to be so categoric, despite the enthusiasm of some member states. The Rome statement effectively lifted the fundamental reserve about the very notion of a Common Fund that had persisted since Nairobi as far as the Community as a whole was concerned. Other major industrialised countries remained to be convinced. But several months later in the closing stage of the Conference on International Economic Cooperation (CIEC) in Paris, these countries too rallied to the Community's approach. The way seemed clear for more constructive dialogue when the Common Fund negotiating conference resumed in November.

But fundamental hurdles remained. The assent to a Common Fund, initiated by the Community in Rome and confirmed by the Western countries as a whole in Paris, in no way implied automatic acceptance of the UNCTAD concept championed by the developing countries of the Group of 77.

Western industrialised countries—among them the Community which was to have a substantial impact on their thinking—developed an alternative approach. They envisaged a system whereby individual commodity agreements based on buffer stocks would bank a certain part of their monies for stocking purposes in a "fund held in common" and provide the stock and other guarantees on which market borrowing could be based. They thus envisaged a system that would ensure that enough money would be available even if a number of commodity prices were to turn down at the same time and

would make it possible for international stocking activities to be carried out at less cost than if individual commodity agreements went their own ways in isolation.

The second session of the Common Fund negotiating conference started off therefore on November 7 under substantially different circumstances from those of March. The CIEC result had enabled the western industrialised countries to put up a more detailed formula of their own right at the outset of the talks. There was widespread feeling that a bridge might be built between the two concepts put forward by developing countries, and the industrialised countries. All too rapidly, however, it became apparent that there were two major difficulties. Firstly, the developing countries continued to insist on contributions to the Fund; whilst western countries envisaged contributions (and guarantees) via individual commodity agreements, funded in turn by the consuming and producing countries participating in them. Secondly the Group of 77 insisted more strongly than ever before that the Common Fund should be able to finance measures other than buffer stocks, both within and outside commodity agreements and arrangements. To western countries the bulk of such measures lay essentially in the field of development expenditure and that where this was so the present international and bilateral development institutions were best equipped to handle them. They indicated their readiness nonetheless to explore together with the developing countries what was being done or not done and see how it might be extended or complemented without excluding a priori a role for the Common Fund.

Two contrasting theses therefore polarised the Conference, and in the absence of sufficient reconciliation between them, the developing countries of the Group of 77 preferred to suspend negotiations.

At the root of the difficulties lay the problem that has beset the Common Fund venture since Nairobi: how can one obtain a clear and worthwhile agreement on financing until one knows what will be done with the money? As 1978 proceeds the intensive talks on the individual commodities themselves that will then have taken place over 12-24 months, may yield a better picture of the possibilities for action. If that in turn can lead the international community towards a realistic programme of action on all aspects commodity trade, then the Common Fund negotiation may yet resume under better auspices than hitherto. □

APARTHEID

London:

In London on 5-6 November a seminar, in what could be the first of a series, was held on the EEC's policy towards South Africa. The seminar brought together business interests, civil servants, journalists, trade unionists, and members of the European Commission in Brussels headed by Maurice Foley, deputy director-general for development. Andrew Kailembo represented the Brussels-based International Confederation of Free Trade Unions (ICFTU). The discussion centred on the EEC's new code of conduct for European firms with subsidiaries, branches or representatives in South Africa⁽¹⁾.

The code of conduct evolved from an initiative by Dr Owen, the British Foreign Secretary, during the period of the UK's presidency of the EEC Council (January-June 1977) and was supported by the other EEC governments. The London seminar saw this as yet another move in the West of hardening attitudes towards South Africa. It was also noted that the United States had changed its policy and that this had meant that the UN Secretary Council could pass a resolution on arms sales to South Africa on 4 November 1977.

The EEC's code of conduct was another example of changing attitudes and aims to improve the position of black workers in European firms operating in South Africa. In Mr Foley's view "there were a number of ways in which companies could enhance the welfare of black African employees through African advancement proposals, training schemes, provision of benefits and social services, etc., but the creation of an effective climate for the development of black trade unions was of fundamental significance. This was seen to be the central relevance of the EEC code of conduct provisions, which, unlike earlier codes, attached first priority to trade union development".

Problem of implementation

The EEC code of conduct is not mandatory, mainly because of the legal problems involved in the various EEC countries. Its effectiveness will therefore depend on the active participation

(1) See page XIV of "The Courier EEC-ACP" no 46 November-December 1977 for text.

of business concerns and the way the code is monitored. The seminar discussed this point and there was general agreement that as many organisations as possible should be involved, including business and trade union organisations, European and national institutions, non-governmental organisations and the media. "There might also be possibilities" said Mr Foley, "for governmental, business and trade union interests to meet together, both at a national and a Community level, to assess progress made with the implementation of the code". The seminar agreed that more information and publicity was needed if the code was to have an impact and transnational companies would need more information on the specific problems of labour relations in South Africa.

The seminar also discussed the general conditions of African workers in the South African economy, the vulnerability of the economy to outside pressure, and the consequences of changes in policy towards South Africa on employment in the EEC and on the economies of the independent states in southern Africa. The code of conduct does not only affect South African black workers but also the large number of migrant workers from countries such as Lesotho and Botswana.

Evolving policy

This year negotiations will start on a new Lomé Convention which is likely to reinforce EEC-ACP cooperation. In Mr Foley's view the evolving economic relationship between the Lomé partners cannot be separated from other issues, and the question of policy towards South Africa, Namibia and Zimbabwe is seen by most ACP countries as evidence of the EEC's attitude in general. The EEC has already provided special aid to Botswana, Lesotho and Swaziland because of their particular position in South Africa — aid which the Joint Committee of the ACP-EEC Consultative Assembly, meeting in Maseru, has just said should be stepped up⁽²⁾. The code of conduct for EEC companies was another significant initiative, in Mr Foley's view, in the EEC's evolving policies towards southern Africa. □

CLUB OF DAKAR

The Club of Dakar held its fourth plenary session from 21 to 23 November 1977 at the European Parliament building in Luxembourg, at the invita-

tion of Mr Emilio Colombo, president of the Parliament. The Club of Dakar was created in 1974 on the initiative of Mr. Mohammed Diawara, former Ivory Coast minister for planning. During the meeting in Luxembourg Mr Diawara was unanimously re-elected chairman of the Club for a further 3-year period. There were 4 topics on the agenda:

- the rise of protectionism in the world
- the possibility of a new international division of labour in agriculture
- the transfer of skills and technologies suitable for industrialization in the Third World
- the conditions and rules for levying a world solidarity tax in favour of the developing countries.

At the end of the meeting the Third World and industrialized countries representatives who make up the Club of Dakar, adopted the following appeal:

"In face of the growing threat of protectionism on the part of developed countries against manufactured goods from developing countries, and the risks that this threat poses to both the prosperity of industrialized nations, to the progress of developing countries, and to cooperation between them, the Club of Dakar appeals to the industrialized countries to solemnly renounce protectionism as a means of solving the economic and social problems which they may face. The industrialized countries should refrain from any unilateral measures and should use negotiations to reach agreements on appropriate measures. The Club of Dakar requests that these arrangements be expressly provisional in nature and asks for the simultaneous negotiation of long-term agreements between one or more industrialized and one or more developing countries, these agreements would involve development which would not only be accepted but would be favoured by industrialized countries acting in developing countries. There should also concerted measures aimed at the progressive redistribution of economic activities that would be beneficial to all parties concerned.

The Club will also publish detailed proposals on the topics under discussion which will be brought to the attention of governments, international organizations and public opinion. These proposals could merit the particular attention of the EEC and ACP partners, at a time when they are considering the scope, the conditions and type of their cooperation with a view to renewing the Lomé Convention.

The next meeting of the Club of Dakar will take place in Africa later in 1978. □

DAC

Growth and basic needs

At its recent meeting the Development Assistance Committee (DAC) of the OECD adopted a declaration on economic growth and meeting basic human needs in developing countries. The following is the full text of the declaration which represents the joint view of the main western industrialized countries:

In the Declaration on Relations with Developing Countries adopted by OECD member governments in June 1977, they acknowledged the necessity to continue working with developing countries towards improved and more effective development cooperation policies directed to the dual purposes of growth of incomes and meeting basic human needs of individuals in all developing countries.

Member governments wish to work with developing countries in further defining the implications of a more determined basic human needs-oriented approach for development efforts and policies, building upon the decisions in the United Nations and the relevant United Nations World Conferences. In particular, they are determined to assist developing countries which seek to expand their capabilities for meeting more effectively the basic needs of their people within the context of achieving self-sustaining growth. A more determined basic human needs-oriented approach to development should permit better understanding and support for enhanced development cooperation efforts.

Basic principles of concept and approach

Many developing countries have, over the past few decades, made impressive progress in their economic development. And yet, notwithstanding this progress and the positive action taken by the international community, severe problems of mass poverty remain. A cause of particular concern is the plight of the one billion people in the world who, largely for want of productive employment, remain unable even to meet the most urgent needs for food, decent drinking water, shelter, health care and education. In the face of this situation, DAC members underline the necessity, as expressed in the Declaration of Principles and Programme of Action of the Tripartite World Conference of the ILO, to add a

(2) See page V.



Maurice Williams (USA)
Chairman of the DAC

new dimension to development strategies addressing the problems of meeting basic human needs more directly.

The concept of basic human needs must be country specific and dynamic, for it is up to the individual developing country to choose and define its own objectives and policies in the light of its circumstances.

Concern with meeting basic human needs is not a substitute for, but an essential component of, more economic growth which involves modernization, provision of infrastructure and industrialization. In particular, policies which contribute to increased utilization of available resources, especially labour, and improvement in their productivity should contribute to both growth and equity. A basic needs approach is not primarily welfare or charity but productivity-oriented, aiming at increasing the productive income of the poor and strengthening the basis for long-term self-generating development. Programmes which involve widest possible participation of the people whose needs are addressed, are most likely to be effective.

Constructive structural change in international economic relations, leading to a more equitable and stable international economic system, one which would create a better life for all people, must remain an essential element of any policy in favour of developing countries.

Basic principles of donor support

The adoption by developing countries of enlarged development programmes aiming at basic human needs objectives and the application of the

attendant policy reforms increase the need for financial transfers and increased efforts by donor countries. While most developing countries have serious problems of economic and social imbalance, the bulk of the problem is in the poorest countries where the majority of the poor live.

No sector should a priori be excluded as a target for appropriately designed assistance. The importance of the different sectors will vary depending upon developing country circumstances and priorities. Significant progress towards raising the productive income and welfare of the poor requires that greater emphasis within aid programmes be placed on contributing to expanding opportunities for productive employment/ rural development, food production and well-designed, broadly accessible health, family planning and education services.

Aid programmes should be designed to promote the active participation of women in the development process.

Natural disasters affect the poorest societies and their poorest members most harshly. External support for increased efforts to defend against such disasters is a significant element in meeting basic human needs.

DAC members recognize the need to strengthen their own capability to contribute flexibly and effectively to basic human needs-oriented development programmes. They will review their procedures for assistance to facilitate implementation with a view to relying increasingly for its administration on the national and local authorities of developing countries, keeping in mind their accountability to governments and parliaments for the effective use of aid resources. DAC members recognize the valuable contribution which non-governmental organizations can increasingly make in the basic needs area.

Since effective policy planning and administrative capacity is critical for implementation of development, DAC Member countries will seek to respond positively to requests from developing countries for assistance for these purposes including training and the strengthening of domestic institutions in such areas as agricultural and industrial extension for low-income producers and delivery systems for basic services.

Improved donor/recipient cooperation

DAC members are ready to determine with interested developing coun-

tries the scope for strengthening their financial and technical support to basic needs-oriented development programmes and to make it more effective. International aid programmes, supporting policies whose development objectives and efforts are oriented towards meeting the basic needs of individuals and of communities, can only be identified at the individual country level, through active donor recipient dialogue building upon the existing arrangements for international aid coordination, such as the Consortia and Consultative Groups, strengthening these arrangements and exploring arrangements of a new kind where appropriate.

DAC members welcome initiatives that might be taken by developing countries to improve coordination of international aid from various sources and its effective integration into national development efforts and programmes.

They will work towards increasing emphasis being given to a more basic human needs-oriented approach to development in the competent international development institutions of which they are members.

DAC members look forward to working with developing countries on the incorporation of basic human needs objectives in the new international development strategy that is being envisaged under United Nations auspices to provide a broad framework for improved international economic cooperation during the coming decade.

Further DAC action

Increased effectiveness of aid programmes in assisting developing countries in a more determined basic human needs-oriented approach to development will continue to be a major concern of the DAC in the period ahead. The DAC, taking fully into account the results of discussions in other international fora, will work towards a clarification on the basic programme and policy issues as well as on the implications for practical aid management and procedures, seeking the advice of experts from developing countries as appropriate. The DAC will keep under review members' aid programmes with respect to their contributions to the developing countries' progress in meeting basic human needs objectives and with a view to expanding the levels and improving the effectiveness of aid programmes in support of developing countries' efforts. □

NON-ASSOCIATED COUNTRIES

Financial and technical aid for non-associated developing countries 1977 programme

On December 15, 20 financing conventions were signed in Brussels between the Commission on the one hand and 10 developing countries and 6 regional bodies from Asia and Latin America on the other. These conventions constitute the 1977 programme of financial and technical aid from the Community to non-associated developing countries, a programme for which a credit of 45 million UA was included in the 1977 budget.

The first such programme, for which 20 m.UA was approved, was introduced in 1976. The 1978 budget proposes an amount of 60 m.UA. From next year it is likely that the Community's action in this field will be governed by basic guidelines to be worked out at the next meeting of the Council of Development Ministers.

Characteristics of the 1977 programme

Priority in the rural sector

In keeping with the objectives of the Community for financial and technical aid to non-associated developing countries, the projects reflect the priority given to the rural sector and to foodstuffs, benefitting the poorest populations:

| | Amount millions UA | % |
|-------------------------------------|--------------------|-------|
| — storage (cereals and fertilisers) | 14.8 | 33.0 |
| — irrigation | 13.0 | 29.0 |
| — research | 6.4 | 14.3 |
| — other agricultural products | 4.3 | 9.6 |
| — studies and technical assistance | 3.3 | 7.4 |
| — fisheries (and livestock) | 3.0 | 6.7 |
| — divers | 0.2 | — |
| | 45.0 | 100.0 |

Emphasis on co-financing

An important part of this aid is granted in collaboration with regional and international financial bodies: 50% of the total value of the programme will be in the form of various co-financings—the principal partners are the World Bank, the Asian Development Bank (ADB) and the Inter-American Development Bank (IDB).

On the other hand, account has been taken in choosing those countries which are to benefit, of the schemes available and of their state of preparation, so as to allow for quick payments.

The projects

Asia

India: 2 projects

Storage of foodgrains and fertilisers (6.4 m.UA)

Increasing the warehousing capacity of the «Central Warehouse Corporation». The Community contribution will enable the construction of about half of the 425,000 tonnes of additional capacity.

Conservation of harvests (5.6 m.UA)

Making available a warehousing capacity of 250 000 tonnes at village level in a number of States as well as products to protect seeds and preserve cereals.

Bangladesh: Muhuri Irrigation Project (5 m.UA)

Irrigation project to enable a 60% increase in the production of rice in a 40 000 ha zone where 45 000 families live.

Co-financing with IBRD and Canada, the EEC will cover about 11% of the total cost of the project.

Pakistan: Chasma Right Bank Irrigation Project (4 m.UA)

This project, situated in the Punjab, on the right bank of the river Indus, covers in the central phase, an area of about 230 000 ha. By bringing irrigation water from an existing dam, it will permit a substantial increase in agricultural production in a region with a serious food supply shortage.

Co-financing with ADB which is providing the equivalent of about 21 m.UA.

Sri Lanka: Mahaweli Ganga (2 m.UA)

This project, situated in the agricultural zones of the northern central part of the country, covers an area of about

50 000 ha inhabited by about 140 000 people. It involves repairing old irrigation structures, constructing new ones, setting up production-support infrastructure and basic social services, as well as providing technical assistance. It will facilitate the production of an additional 42 000 tonnes of cereals.

Co-financing with two Member States (United Kingdom and Netherlands), IBRD-IDA, and the United States.

Vietnam: (2.4 MUC)

Supply of heavy equipment in connection with a Government project to clear, and cultivate 30 000 ha of maize and soya in the Dong Nai province.

This project is in line with the national policy of increasing the area under cultivation in order to ensure food supply for the population.

Indonesia: (2 m.UA)

The Community contribution covers the irrigation section of a transmigration project aiming at moving some people from the overpopulated Islands of Java, Bali and Madura to Sumatra, Sulawesi, Kalimantan and West Irian. It will cover the basic water-engineering infrastructure.

Co-financing with ADB.

Thailand: (0.1 M.UA)

The project covers the setting up of a pilot centre for developing pig farming, by small farmers belonging to cooperatives south of Bangkok. This is a micro-project which will provide a very important structure for the cooperatives in the region in question. A second scheme concerning pisciculture is financed through ADB for a sum of 0.9 MUC.

North Yemen: 2 projects (2 m.UA)

Technical assistance in the rural section:

This is a general programme of technical assistance providing experts for the Ministry of Agriculture and at experimental farms. The Community contribution will enable this project to continue in 1978-79 under a co-financing arrangement with the IBRD.

Wadi Rasyan:

Study of the possibilities of developing a valley in the south-west of the country.

Regional projects

Icrisat (1 m.UA)

The International Crops Research Institute for the Semi-Arid Tropics

received Community aid in the 1976 programme. The contribution for 1977 goes to a research programme for the improvement of leguminous vegetables.

Irri (1 m.UA)

The International Rice Research Institute receives aid in three fields:

- water management for rice irrigation
- selection and adaption of varieties of rice
- training programme

Asian Development Bank (3.3 m.UA)

As well as direct co-financings with the ADB, this regional bank seemed a suitable channel for a part of the Community's aid.

The following actions were approved:

- *Afghanistan*: participation through delivery of lorries in a projects for increasing storage capacity and for distribution of fertiliser and pesticides.
- *Burma*: provision of equipment for the creation of fish farming ponds.
- *Thailand*: participation in the development of artisanal and rural inland fisheries in the marshes of the gulf of Thailand, a project for which the studies were financed by the European Community in 1976.

Latin America

Bolivia (1.8 m.UA)

Integrated rural development project benefitting the poorest sections of the population (high plateau region). It is designed to rationalise the production, processing and marketing of wools, to promote artisanal activities and to provide essential social services.

Food aid to Bangladesh

A project co-financed by the EEC, the IBRD and Canada, can help increasing by 60% rice production in a few years



This project will be co-financed by the IBRD/IDA, the EEC and the Bolivian government. Financing by the Community mainly applies to the social infrastructure.

Honduras: Artisanal fishing (1 m.UA)

This project aims to help the fishing cooperatives to acquire equipment and to develop facilities for unloading, transport and refrigeration. The Community's contribution will be used more specifically for the purchase of 20 small fully equipped fishing vessels.

This scheme involves parallel financing with the IDB and the Honduras Government.

Regional projects

Central American Bank for Economic Integration (1.8 m.UA)

Participation in a regional project to increase the storage capacity of cereals in the public sector. The instalment concerns Honduras and Costa Rica. Parallel co-financing with IDB, of which the Community part goes mainly to Honduras, the poorest country in the area.

Institute of Nutrition of Central America (1.8 m.UA)

Project aimed at reducing food shortages by developing processes for using local agricultural products in the food industry.

Andean Pact (3.6 m.UA)

A programme of technical assistance and the perfection of professional knowhow in fields of common regional interest involving the agricultural sector as well as a project in the field of research into food technology. □

BRANDT COMMISSION

Members named

Mr Willy Brandt, the former West German chancellor, who is heading an independent commission to look into ways of closing the gap between the developed and developing countries, has named 16 world politicians and economists to help him in his task. Willy Brandt was asked to set up the group last September after a proposal by Robert McNamara, the president of the World Bank. The new commission, which has a permanent headquarters in Geneva, began its work on 9 December, and in 18 months time it hopes to produce a report on politically and economically practical ways of bringing about a new international economic order. The majority of the members named for the so-called Brandt Commission come from the developing world. They are:

Antoine Kipsa Dakouré, former planning and agriculture minister of Upper Volta,

Eduardo Frei, former President of Chile, Katharine Graham, publisher of the US magazine Newsweek and the Washington Post,

Abdaltif al-Hamad, director general of the Kuwait Fund for Arab Economic Development,

Edward Heath, former British prime minister,

Amir Jamal, former finance minister of Tanzania,

Laksmi Kant Jha, governor of Jammu and Kashmir, India,

Adam Malik, former Indonesian foreign minister and former president of the UN General Assembly,

Pierre Mendes-France, former French President of the Council of Ministers,

Rodrigo Botero Montoya, former Colombian finance minister,

Joe Morris, chairman of the International Labour Organisation,

Olof Palme, former Swedish prime minister,

Peter Peterson, former United States secretary of commerce,

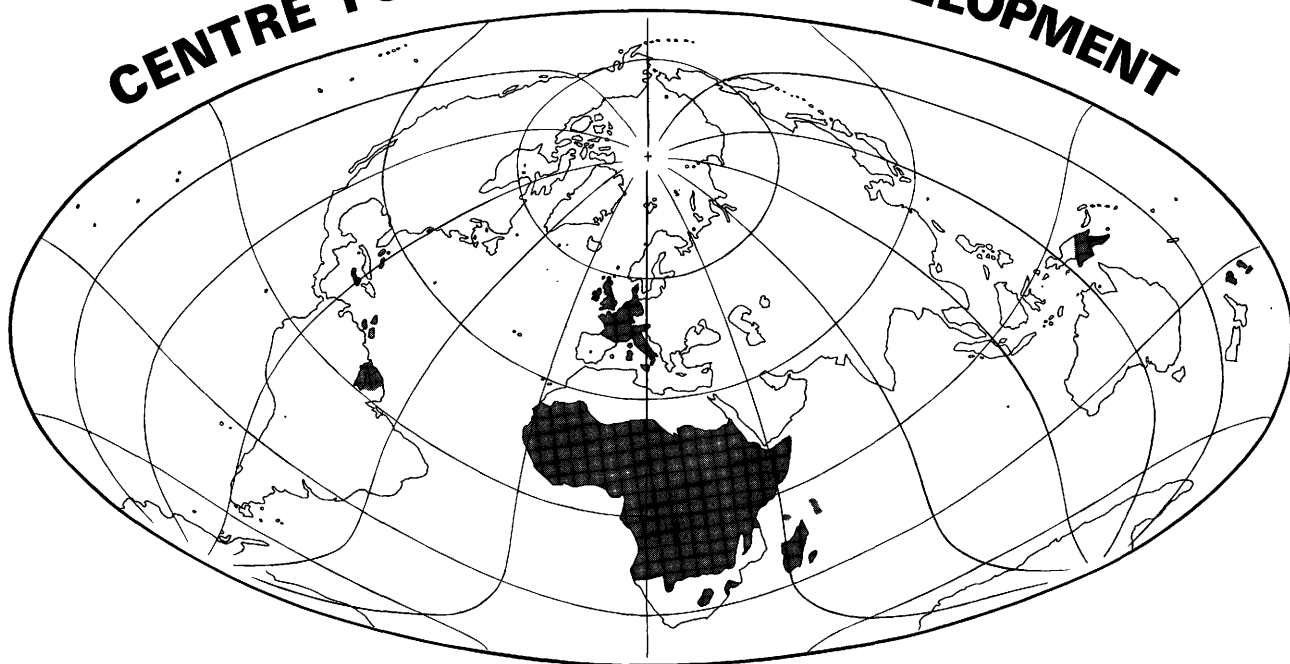
Shridath Ramphal, secretary-general of the Commonwealth,

Nobuhiko Ushiba, former Japanese ambassador to the United States and Canada,

Layachi Yaker, former Algerian minister of commerce.

The commission's executive secretary is Göran Ohlin, professor of economics at Uppsala University in Sweden, and an additional member, a woman from a developing country, may be added later. □

CENTRE FOR INDUSTRIAL DEVELOPMENT



BUSINESS OPPORTUNITIES

Manufacture in the ACP States for export

One of the problems faced by the ACP States in their search for industrialization is the small size of the domestic market. It is not surprising, therefore, that the States are interested in manufacture either wholly or partly for export. Under the terms of the Lomé Convention, products manufactured in the ACP States have free access to the Community market.

At least two distinct types of opportunity can be seen:

Processing of local raw materials

Many States possess two of the critical elements of a successful business: abundant low cost raw material and abundant labour. In some cases, it may be possible for the Centre to find finance for the training of this labour. These resources spread across the whole gamut of industrial materials: tim-

ber, clays, agricultural produce, iron, and other materials. The Centre would like to discuss with Community industrialists the opportunities which exist for establishing business aimed at export.

Incentives

Special Zones Offering Fiscal Incentives

A number of States have established free zones to encourage the growth of export industries. The zones offer considerable fiscal and financial incentives to industry. These may include exemption of tax on profits for an agreed period: concessions on import taxes for capital goods for raw material or semi-finished goods: factory buildings at concessionary rentals etc.

The Centre is seeking ways to encourage the establishment of export industries in these zones. Typical industries might be:

— electronics manufacture for export to the Community,

— processing of local cotton into products for the Community and other ACP States,

— flat glass for export to other ACP States: for example in a regional grouping,

The Centre is prepared to assist industrialists to examine an appropriate project.

Opportunities in the ACP States

Requests have been received from the ACP States that they be put in touch with Community companies. A selection of these requests includes:

Air conditioning and refrigeration — Ref. 16/77

Markets exist both for the assembly of the Community manuf-

actured product and for repair and reconditioning. In at least one case, the prospective partner in Africa is already engaged in servicing and wishes to expand its capability and its market.

The Centre would like to make contact with Community companies interested in investigating these opportunities.

Quarrying — Ref. 17/77

Liberia — Quarrying: EEC joint-venture partner requested by private businessman.

Tanning - Ref. 18/77

Swaziland — Tannery: with EEC joint-venture partner, establishment of small tannery to process about 20000 hides and 50000 skins per annum.

Lesotho — Tannery: EEC joint-venture partner requested for project similar in size to Swaziland project.

Fishing and fish processing - Ref. 19/77

Sierra-Leone: Fishing and fish-processing: modernisation and expansion of existing facilities (sardinella fishing, freezing and canning; fish meal and oil production).

Clay-based industry - Ref. 20/77

A number of ACP States have clays which are suitable as the bases of industries in tiles: sanitary ware, crockery, etc.

In some instances, the market size is limited and it may be advantageous to consider a factory making several of the above products. In one instance, the market size is probably extremely large.

Ivory-Coast, for example, in 1976, imported 1,180 t of sanitary ware at a value of about DM 3 million.

The Centre seeks contact with EEC companies with experience in these industries and a willingness to study the advantages of a joint-venture operation.

The Centre also invites ACP principals to assess the local markets for glazed floor tiles, glazed wall

tiles, sanitary ware, domestic crockery and to send these assessments to the Centre.

We will then advise whether production might be undertaken profitably at these levels.

Textiles - Ref. 21/77

Barbados — Cotton Polyester Knitting: private industrialist and Government seek EEC technical and commercial partner to carry out market survey (both Caribbean and export markets), conduct feasibility study and to invest in joint-venture.

Timber processing - Ref. 22/77

Ivory-Coast — Railway sleepers and poles: EEC technical and financial partner needed for manufacture of 220000 railway sleepers and 80000 electricity telegraph poles per annum.

Ivory-Coast — Wood toys: EEC technical and commercial partner required to produce for export.

Molasses processing - Ref. 23/77

Ivory-Coast — Alcohol, vinegar and yeast: the implementation of 5 sugar mills up to 1980, justifies a plant for the processing of molasses. 1980 consumption of products derived from molasses, is estimated at 7000 t alcohol, 8-10000 t vinegar, and 3-4000 t yeast.

The production of power alcohol, for blending with petrol, should also be envisaged.

EEC technical and financial partners are requested.

Horticulture - Ref. 24/77

Swaziland — Vegetable dehydration: EEC joint-venture partner requested for the establishment of a factory to process 20-30000 t of vegetables p.a.

Sierra-Leone — Orchid production: local businessmen welcome cooperation with EEC partner to establish an orchid farm and to grow other flowers, as well as fruit and vegetables, for export to EEC. Expressions of interest from EEC customers already available.

For both projects, the CID would consider assistance for the preparation of a feasibility study.

Hotels - Ref. 25/77

Kenya — Diani Beach Hotel: EEC hotel companies and tour operators are invited to consider investment in a 300-bed hotel on Diani Beach, 20 kms south of Mombasa. Local partners and an Italian tour operator are available.

Modular projects

The Centre has examined a number of industrial processes at scales of production which should be appropriate to some ACP States.

Some of these processes are described here: others will be described in later issues of Business Opportunities. Each process is matched to its appropriate market size. If you believe that you can find a market of the size described, write to the Centre asking for a free copy of the Business Profiles.

Glass Bottles - Ref. 26/77

One or more industrialists would like to invest in the manufacture of glass bottles. The minimum requirements are a market for 3 million bottles and cheap supplies of the raw material: mainly vitreous sand

Clay Pipes for drainage - Ref. 27/77

Clay pipes can be manufactured profitably by States having suitable clay and having a market of 150000 metres of pipe a year. The Centre can arrange for the testing of clays to determine their suitability. This is a free service. ACP States interested in a joint-venture to manufacture clay drainage pipes are invited to contact the Centre.

Electric Light Bulbs - Ref. 28/77

The production of electric light bulbs can be profitably undertaken if a market exists for a minimum of 8 million bulbs a year. At least one willing Community investor has been identified. Principals interest-

ed are invited to contact the Centre.

Manufacture of Disposable Hypodermic Syringes - Ref. 29/77

Disposable hypodermic syringes can be profitably manufactured using imported raw materials, at a scale of 12 million units a year. Principals having a market of this size are invited to contact the Centre. The production would also be suitable as a Regional Project to serve two or more States. Principals having a market of more than 6 million units a year but less than 12 are invited to request the Centre to find a cooperating State.

Manufacture of Building Boards made of Cement and Wood Waste - Ref. 30/77

The manufacture of building boards made of cement and wood waste can be profitably undertaken at a production rate of 400 square metres a day.

At least one silling Community investor has been identified. Principals interested are invited to contact the Centre.

Bricks - Ref. 31/77

Profiles are available for the manufacture of bricks using normal industrial processes at a scale of 100000 tonnes/year and 50000 tonnes/year. Some work is under way to examine the viability of minibrick plants.

The Centre would like to know the level of interest which exists in the mini brick plant.

The level of output has not been calculated but is estimated to be about 10000 tonnes/year.

Concrete Roof Tiles - Ref. 32/77

Concrete roof tiles can be made viably at a scale of 180000 square metres a year. Principals interested should examine carefully the market for these tiles which are suitable

for houses and commercial buildings. If the market seems appropriate, write to the Centre for details.

Ceramic Sanitary Ware - Ref. 33/77

The manufacture of ceramic sanitary ware at a scale of 1000 tons a year can be viable. Principals having a market of this size are invited to write for details to the Centre.

Ceramic Floor and Roof Tiles - Ref. 34/77

A Business Profile exists for the manufacture of ceramic floor and roof tiles at a scale of 325000 square metres a year. If you have local clays and a market of this size, write to the Centre for details. Work is under way to determine the viability of producing these tiles at a much smaller scale—from about 50000 square metres a year. The Centre would like to hear from principals who are interested in this level of production.

Fiber Glass Tanks - Ref. 35/77

An EEC firm is looking for an ACP partner for the manufacture of reinforced fibre glass tanks of 1000 and 2000 litres for fuel, water, alcohol, ect. The estimated minimum level of production is about 30 tanks per day. Machinery cost is about DM 1,5 million. Apart from tanks, the plant could also make building components, boats, car bumpers, etc.

PVC Compounding - Ref. 36/77

Local factories manufacturing products made of PVC require the PVC granules. These are frequently imported. These granules can be manufactured locally at a minimum scale of 300 tons a year.

Jerry Can Production - Ref. 37/77

The manufacture of jerry cans at a scale of 360000 cans a year is viable. The cans are made of P.E.

(Polythylene) and are suitable for petrol, oils or water.

Table Ware - Ref. 38/77

Cups, saucers, plates etc. can be made of several raw materials. The Centre can provide details of a factory for the production of ceramic tableware using local clays. The scale so far identified is 8000 flat articles a week.

An alternative material is melamine and the manufacturing process is far more simple. Production can be viable at a level of 800 items a day.

Dry Batteries - Ref. 39/77

Dry battery production using imported raw materials can be viable at levels of 15 million batteries a year or more. The market might demand a level of regional co-operation.

Matches - Ref. 40/77

The minimum level for the viable manufacture of matches by modern automatic processes is 160000 boxes a day. A plant of this size would employ 60-80 people.

Biscuits - Ref. 41/77

An automatic plant for the manufacture of biscuits from local raw materials can be undertaken at quite low levels of production. A plant could start at a level as low as 1.2 t/day. Such a factory would employ about 30-40 people.

Semi-automatic bakeries - Ref. 42/77

The baking of bread in modern semi-automatic processes can be profitable at township level with a production of 5 t a day. The plant costs are typically around US \$ 1 million.

Overhead Irrigation Pipes - Ref. 43/77

The use of aluminium irrigation pipes is increasing and market demand in many States can be expected to increase.

“Industry is our profession”

The minimum viable production is 1200 metres/day.

Missions to ACP States

Missions have been made to Barbados, People's Republic of the Congo, the Co-operative Republic of Guyana, Kenya, Liberia, Nigeria, Senegal, Sierra Leone and Trinidad-Tobago.

In each State, discussions have been held with Government ministers, with Development Authorities

and, where appropriate with the private sector.

During each mission, the State and the Centre delegates jointly discussed possible industrial projects. A proportion of the projects involved markets which would be inadequate to support economic production using any proven technologies. In some of these instances, the Centre may be able to find appropriate but unproven technologies. Other projects appear to have an adequate market and the Centre is in discussion with possi-

ble joint venture partners in the Community.

Future missions

During the next two years or so the Centre wishes to make a number of missions. These missions will be planned a long way in advance and work is now being put in hand.

Missions currently planned: Republic of Zambia, Democratic Republic of Sudan, Madagascar and Mauritius, Cameroun, Ivory Coast, Upper Volta. □

A QUICK RESPONSE

If you are interested in any of the items mentioned in this periodical, send us a telex quoting the reference and we will send you further information when it is available.

Address all correspondence to:

**Centre for Industrial Development
"Business Opportunities"
451, Avenue Georges Henri
1200 BRUSSELS,
BELGIUM.**

**Telex No. CDI 61427
Telephone (02) 7358073.**

Alternative technology

A critical choice for developing countries

This is the start of a new section in the "Courier". We hope to make it a regular feature and we especially want contributions from "Courier" readers. Here's what it's all about.

Alternative technology, also called "intermediate" or "adapted" technology, means finding cheap, simple and effective ways of doing things instead of using complicated and expensive machinery. For the developing countries, alternative technology means using local materials and techniques that ordinary people can handle, instead of machinery and experts from the industrialized countries. Why buy a mouse-trap if you've got a cat? Alternative technology is do-it-yourself development, and that's the best kind.

One example: in many ACP towns, people could build good houses themselves out of traditional materials. Instead, houses are built from imported materials by professional firms. They cost too much, willing hands are left idle and no one learns how to do it in future.

The following résumé of an article by George McRobie and Marilyn Carr, of the Intermediate Technology Development Group in England, introduces the subject. We will be giving practical examples of alternative technology in action from now on, and we need your help. If you know a better and cheaper way of doing something that would interest other people, write to the "Courier". We'll spread the word. Theoreticians, beware—this section is for practical people. B.T.

Where people live, and how they earn a living, is largely determined by the technologies available to them. As far as the poor countries of the world are concerned, during the past 20 years they have had access only to the technologies developed by the rich to suit the rich; and it is now beyond question that some of the most daunting problems confronting the majority of the world's populations stem directly from the kind of technology transferred to them under current aid and development programmes.

In this paper our discussion is restricted to the needs of developing countries, and the technological choices that are or should be open to them. Nothing in this should imply that the rich countries do not need to alter their technologies. The point is that the industrialized countries already possess all the scientific, technical and other resources necessary to make real choices of technology available; the developing countries do not.

The technologies of the rich countries are generally capital-intensive and labour-saving; complex, requiring elaborate servicing and support systems (specialized management and labour skills, spares, raw materials, fuels and the like); and large-scale, calling for mass-consumption markets. But developing countries are short of capital, which means that they need **capital-saving** production methods; they are short of specialized skills and of foreign exchange, which means that they need equipment that is simpler to make, operate and maintain, using locally available resources of men and materials; and many of their markets are small, calling for smaller, more flexible units of production.

That the technology of the rich is generally inappropriate to meet the needs and resources of poor countries is becoming more widely recognized both by aid-givers and aid-receivers. Yet it is this technology that continues

to be almost exclusively and most powerfully promoted in the developing countries.

The distortion effect

There is as yet no parallel flow of information reaching developing countries about technologies more appropriate to their needs. In its absence poor countries frequently make technological choices—or are persuaded to do so—that are damaging to their economies.

A country imported two plastic injection moulding machines costing \$ 100000 with moulds. Working three shifts with a total labour force of 40 workers they produced one-and-a-half million pairs of plastic sandals and shoes a year. At \$ 2 a pair they were better value (longer life) than cheap leather footwear at the same price. Thus 5000 artisan shoemakers lost their livelihood which, in turn, reduced the markets for the suppliers and makers of leather, hand tools, cotton thread, tacks, glues, wax and polish, eyelets, fabric linings, laces, wooden lasts and carton boxes, none of which was required for plastic footwear. As all the machinery and the material (PVC) for the plastic footwear had to be imported, while the leather footwear was based largely on indigenous materials and industries, the net result was a decline in both employment and real income within the country.

The results of this dominance of capital-intensive technologies are now all too familiar. National production—as measured by gross national product—may rise; but relatively few jobs are created in the process. These production units, being mostly city-centred, are in the wrong place, and the kind of goods they produce are generally of the wrong kind to meet the needs of poor people. With very rapidly rising populations, this produces the

phenomenon of massive city growth, as migrants from the countryside move into the cities to seek work; and simultaneously, growing unemployment and under-employment in the rural areas, where very few new jobs are being created either in farming or non-farm-manufacturing activity.

Can the millions of small farmers be helped to be more productive? Can millions of new jobs—both in farming, but even more in non-farm work—be created in the rural areas? The crucial questions that stem from these are: first, what kind of technologies are needed and, secondly, how in fact can poor people in poor communities be furnished with the technologies of self-help?

A new technology for development

The critical role of technology in economic development, and especially the importance of technological choice, was first brought into perspective by E.F. Schumacher 12 years ago when he formulated the concept of intermediate technology. Its essence is that the capital intensive technologies of the highly industrialized countries, demanding upwards of \$10000 to create one workplace in manufacturing industry, are generally inappropriate for poor countries and especially for rural communities. To meet **their** needs a new technology must be discovered or devised: one that lies, so to speak, between the sickle and the combine harvester and is small, simple and cheap enough to harmonize with local human and material resources and lends itself to widespread reproduction with the minimum of outside help.

These new technologies, Schumacher felt, must have the following characteristics:

— They must provide new and improved workplaces as near as possible to where people live now—in the rural areas;

— They should be cheap enough to be created in large numbers, without meeting impossible demands on savings or imports; that is, investment per workplace should be related to income per head;

— Production methods should be simple, place the least possible reliance on imported materials, skills and organization; and

— Production should be directed mainly to meeting local needs and using local and indigenous raw materials.

Low-cost technology in practice

There is now sufficient experience of low-cost technologies to justify a major expansion of this kind of work. There are three broad categories which between them cover the different ways of arriving at appropriate technologies. The first category comprises cases where modern knowledge has been applied to the upgrading of traditional rural activities, such as the manufacture of building materials, water storage and movement, and textile manufacture. The second category covers cases of the scaling down and re-designing of production methods, to produce relatively sophisticated end-products in ways that are simpler, cheaper and/or more labour-intensive; this includes the manufacture of cement, sugar, packaging materials, ceramics, metal-working. The third category covers specially designed products—broadly speaking new inventions—arrived at in the light of the availability of resources and skills.

Filling the technological gap

Over a wide range of agricultural, industrial and service activities, efficient, low-cost technologies are already working or are in advanced stages of development or experiment.

What has been done so far only demonstrates what **could** be done on a much more extensive scale. If we look no further than at some of the technologies required to produce the basic necessities of life—food, clothing, shelter, and community services such as health and education—the list might look something like this:

Agricultural production—tools and equipment for ground preparation, planting, weeding, harvesting, along with the basic tools and techniques required for their manufacture: blacksmithing, welding, woodworking.

Water supply (horticultural)—equipment for storing, lifting, moving water.

Crop processing—shellers, winnowers, mills, oil extractors, decorticators, fertilizers and feedstuff manufacture

and by-products. (This would include processing of a wide range of products from biological resources.)

Storage—storage equipment appropriate for different crops, using local materials.

Food preservation—metal and glass containers, cooking utensils, equipment for smoking, sun-drying; packaging for different foods.

Clothing—equipment for ginning, spinning, weaving, for cotton and wool; manufacture of dyes and finishing materials; tailoring equipment; leather tanning; manufacture: footwear, animal harness.

Shelter—brick and tile making, lime burning, cement substitutes, small-scale cement production; soil stabilization; timber production and by-products; cast and forged metal fittings.

Consumer goods (not included above)—household utensils, equipment for pottery and ceramics, furniture, soap, sugar, domestic water supply including water purification and sanitation, cooking stoves, fuel, toys.

Community goods and services—school and medical clinic equipment, road-making, bridge-building, water supply, power sources and equipment, transport; and data and equipment required to operate institutions such as health clinics and co-operatives, work-based education, and training-through-production programmes.

For each identifiable manufacturing activity (there are obviously more than this list suggests) we should aim to provide at least two or three levels of technology, to cater not only for people who are already within a market system, but especially for those who are wholly or partly outside the conventional market economy.

The table overleaf shows one dimension of the technology “gap” and what is needed to fill it. Equipment that is locally manufactured for sale meets part of the need; but a high proportion of peasant farmers cannot afford to buy it, and their need is for tools and equipment which they can mostly make for themselves, out of materials to hand. The point becomes clear if we look at the cost of equipment in relation to income. The cheapest form of imported machinery shown in the table would represent about five years **total** income of a poor family; and even that locally manufactured on a commercial basis represents a level of saving quite

Costs of farming equipment in Tanzania (Tanz. shs.)

| | Imported mechanized (list price) | Locally manufactured for sale (list price) | Village level (self-help) (unit cost) |
|----------------|--|--|---|
| Oxcart/trailer | 5 800 | 710 | 335 |
| Handcart | — | 400 | 150 |
| Cultivator | 9 000 | 192 | 52 |
| Harrow | 7 250 | 175 | 60 |
| Wheelbarrow | — | 175 | 57 |
| Maize sheller | — | 96 | 53 |

beyond them. Only the equipment prices shown in the last column are within the reach of the majority of poor people.

We have, then, fairly clear guidelines as to the kind of technology that can and should be developed; and also of the fact that the "technological gap" that remains to be filled is a very wide one. The point is that all the pressures of the past 100 years or so, and especially during the past 30 or 40 years, have been towards labour-saving, capital-intensive, highly centralized methods of production. What we now need most urgently is a new set of technologies, designed by people who are informed by the need to develop **capital-saving** technologies capable of being decentralized to the maximum extent. Because productive work is the only effective means of income distribution in poor countries, and because of capital, foreign exchange, infrastructure and other constraints, we have to discover and invent ways of doing things that make the family more self-sufficient in terms of basic needs; the community more self-sufficient; the district or region more self-sufficient; leaving the capital cities to produce those goods and services that cannot be provided by the non-metropolitan economy.

Mobilizing knowledge about appropriate technologies

The "technology gap" is not only wide, but the knowledge and resources required to fill it, although they exist in the industrialized countries, have not been mobilized to provide the right kind of knowledge and to make it available to those who need it. It was to do this—to organize knowledge and

practical research and development work, and to make the results widely known—that the Intermediate Technology Development Group was set up 10 years ago. Our experience, and that of our counterparts in other countries, shows that a great deal of relevant information already exists; and that when it does not, the technical knowledge required to fill the gaps can be readily found—in universities and polytechnics, in industry, in government research establishments, in the professions and among field workers in developing countries.

This kind of approach, it will be evident, starts not by assuming that peasant farmers must adopt Western farming techniques and equipment or, as it were, so much the worse for them if they do not; it adopts the more open-minded and realistic approach of finding out what people are trying to do and helping them to do it better. As Dr Harry Darling, Principal of Wye College (England) and Chairman of the Intermediate Technology Group's Agricultural Panel, puts it:

«Visitors to agricultural research stations in Africa have long been struck by the contrast between the high level of crop production visible on the experimental plots and the subsistence level systems displayed on smallholdings outside the research farm gate. A thousand years of progress at first sight appears to separate these two extremes.

It was customary in the past to attribute this gulf to failures in local agricultural extension work. The scientific data, the advanced technology was there but it was claimed that local extension workers had failed to explain things convincingly to the farmer. Whi-

le there is some truth in this claim, it is now realized that it is far from being the whole truth. In too many cases the results of research have been incapable of being applied in practice, because they are inappropriate for technological, economic or social reasons.

It has to be accepted that in future a prerequisite for success in agricultural research in Tropical Africa is an adequate knowledge of the human systems into which the results of research have to fit. This must include an understanding of the technological bottlenecks that limit the production of various crops and of the ways in which these factors interact with the social, economic and family life of the farmer.»

New directions for aid and development

If real choices of technology are to be made available to people who need them, on the scales required to make an impact on unemployment, poverty and malnutrition in developing countries, then it must be accepted that it is not good enough—indeed it is beside the point—simply to call for more aid and a greater flow of resources from the rich to the poor countries. The mixture the same as before, only more of it, is hardly a useful prescription if the results lead to an acceleration of city growth, rural impoverishment and an increased dependence of the poor countries upon the aid-givers. A change in the **quality** of aid is required; and the making available, to those who want it, of practical technological alternatives, with special emphasis on technologies that are widely reproducible by the developing countries themselves, is central to this change.

Setting up centres of knowledge on appropriate technologies would have a high priority in any aid-giving country that is really concerned about helping the poor to work themselves out of poverty. Even higher priority would be given to the further development and strengthening of indigenous "knowledge centres" in the developing countries themselves. It is only through such centres that needs and resources can be properly identified, and the knowledge and practice of appropriate technologies widely disseminated. Focal points of this kind are now increasing in number.

Ideally, appropriate technology units of this kind should be brought in at the early stages of a government's development plans to ensure that technological choices are explored and informed decisions are arrived at. That such decisions are crucial is beyond question. The choice of technology determines who gets work (and, therefore, the income, skill and self-reliance that go with it) and where work is done, (that is, the geographical distribution of industry and capital formation). It has considerable influence on the kind of infrastructure required, patterns of education and training, and the extent of economic self-reliance or dependence upon foreign countries. A great deal turns on whether or not a country has real technological choices open to it.

To mobilize and make widely known appropriate, adaptable technologies is one part of the task and one to which the aid-giving countries can make a major contribution. But the widespread adoption of new and improved technologies, especially in the rural areas, also demands unconventional approaches.

This applies especially to the creation or strengthening of facilities through which new technologies can be brought within the reach of rural populations. Decentralized "production by the masses" requires a different support system from that dictated by highly centralized mass production.

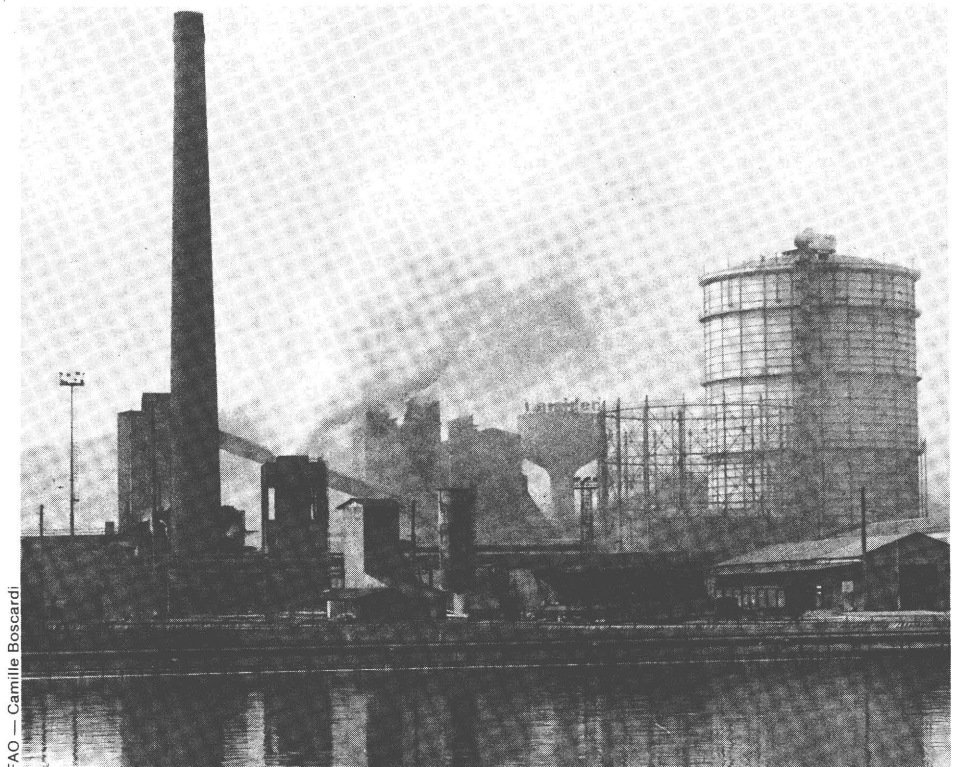
Today there are signs of a growing awareness among the countries which supply the industrialized part of the world with much of its raw materials that their best interests are not served by continuing to export raw materials in their natural state; and that they should progressively secure the benefits of "value added" by work, by processing and manufacturing, within their own boundaries.

What is less (as yet) widely recognized is that the same holds good **within** a country. The rural areas will remain the poor relations of the cities, and life in the rural areas will continue to deteriorate, unless new work and new income opportunities are made available to rural communities. The production of agricultural surpluses can only be made more attractive to the producers if they are given a share of the value added by means of local processing and manufacture; this also makes sense at a time when transport costs are rising rapidly. But the highly centralized, capital-and-energy intensive technology of the industrialized countries stands in direct opposition to this pattern of development. A policy of bringing industry into the rural areas, and maintaining a balanced structure within a country, requires virtually a complete reversal of the forces that have shaped the present—violently lop-sided and precarious—structures of the main industrialized countries. Decentralized, relatively small-scale production units, which enable very large numbers of people to get more productive jobs, can maximize local (and national) self-sufficiency, and open the way for further development of local skills. This is exemplified in the Tanzanian approach, based on the Ujaama village and the internal region or province. There is obviously no rule of thumb as to what constitutes the "right" size of unit for creating a balan-

ced cultural/industrial structure within different countries: the Chinese commune and Israeli kibbutz are other instances of structures aiming at self-sufficient communities. The main point in our present context, however, is that the supporting structures and facilities required to build up and service integrated rural communities are likely to differ very considerably from those developed in the rich countries.

There will be far more emphasis, for example, on work-based primary and secondary education, and on higher education geared to indigenous needs and resources; on the development of an industrial, as well as an agricultural, rural extension service; on credit facilities that actually reach and help small farmers and local manufacturing units; on training facilities that are based on locally available technologies and raw materials and on local management requirements; on rural health services; and on other facilities such as for transport, marketing and recreation, all aimed at maximizing local activity and minimizing imports. Such developments go far beyond "technology", but in every case technology is one of the critical inputs, and it is quite certain that a much greater, deliberate and systematic effort is now required; first to mobilize knowledge about practical technological alternatives and then to get them into the hands of people who can use them. □

The industrial countries need some technological alternatives, too (factory in Italy)



FAO — Camille Boscardi

TEACHING

United World Colleges: an international education

An idealistic experiment in international education has become a reality over the last 15 years in the form of the United World Colleges(1), a movement which brings together pre-university students from all over the world to share an education and get to know each other across the barriers of nationality.

This winter, the first ACP students financed by EDF scholarships have started the two-year course at Atlantic College in Wales, the first UWC establishment. Students from Senegal and the Sudan have joined young men and women of 45 other nationalities on a course founded on liberal studies, community service and teamwork, leading to an international university entrance qualification, the International Baccalaureate (IB).

Atlantic College opened in 1962. A second United World College opened in Singapore in 1971 and a third in Canada in 1973. Plans to open a fourth near Trieste in Italy were set back by the recent earthquake in the area (Friuli), but this should go ahead soon. The UWC is now working on a fifth college in Swaziland and plans are being discussed for United World Colleges in Venezuela and Iran.

UWC in 40 countries

The movement is represented in some 40 countries by committees which select and finance students in cooperation with the ministries of education and foreign affairs (in many countries the head of state is the patron of the UWC National Committee). The chairmen of these committees make up the UWC International Council, whose president is Lord Mountbatten, and there is an International Secretariat in London.

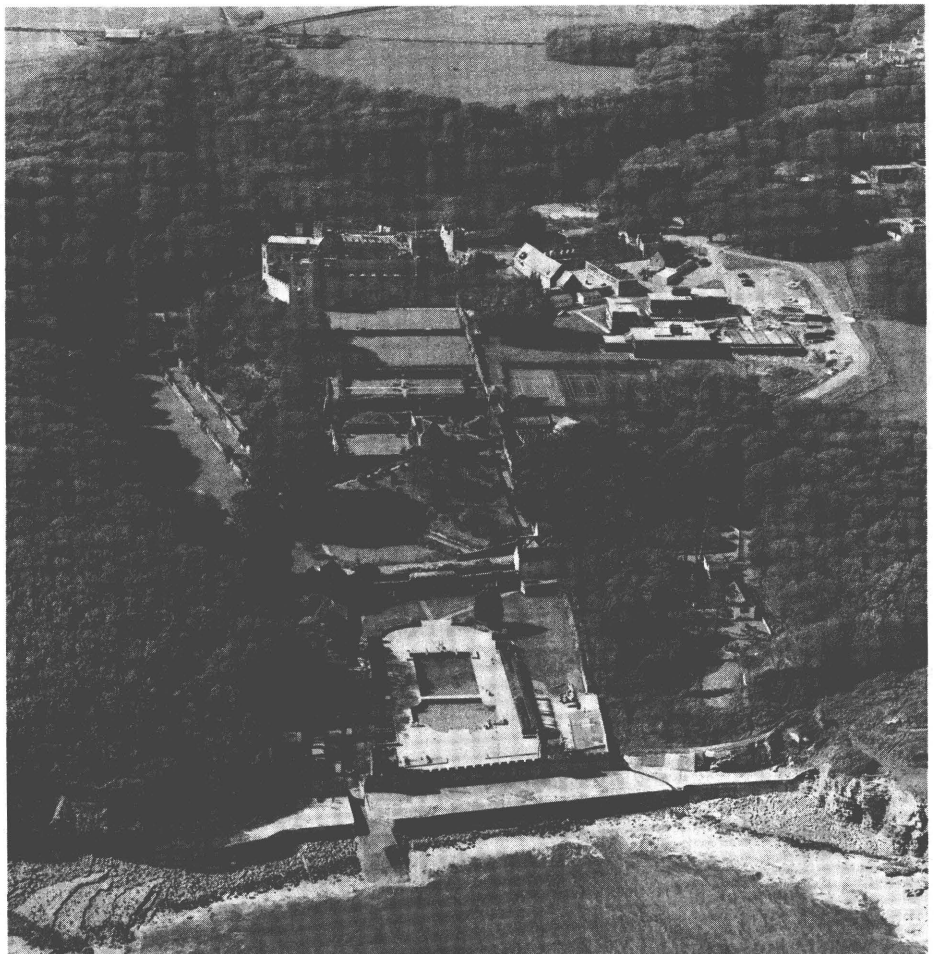
Education for an international world

The basic philosophy of the UWC movement is that education must become an integrating force among nations. It was put forward by Dr Kurt Hahn, a world-famous educationist who came to Britain in 1934 as a refugee from Hitler's Germany and founded Gordonstoun school, where one of the first pupils was the Duke of Edinburgh. Atlantic College was idealistic and experimental, but experience has confirmed that there is a world-wide and growing demand for international education of this kind. Former Atlantic College students have returned

to more than 250 universities throughout the world and the constantly increasing number of businessmen, diplomats and civil servants working abroad provides a growing demand for this kind of education in a multinational and international milieu.

The International Baccalaureate

The spread of the movement has raised the question of international acceptance of educational qualifications. The International Baccalaureate Organization in Geneva is pioneering the first genuinely international university matriculation examination. It is based on the continental European approach in that students take six subjects out of a wide range of arts and sciences, specializing in three of them. The IB formula is internationally-oriented and expanding rapidly, although a lot of ground has still to be covered before it becomes widely valid. Nearly 100 institutions now participate in it



Atlantic College

(1) London House, Mecklenburgh Square
London WC1 N2AB (G.B.).

besides the United World Colleges and students from more than 100 countries have sat IB exams in the last six years. The future development of the International Baccalaureate will be considered at a major inter-governmental conference in London in February, convened by the British Secretary of State for Education, Shirley Williams, in association with the Secretary-General of the Commonwealth, Shridath Ramphal.

A founder-member of Atlantic College and of the IBO, Robert Blackburn, described the aims of the United World Colleges as follows: "The plan was to set up a chain of international colleges, first in Britain and then in other countries, which entered young men and women of high ability and from many countries for the last two years of secondary school. In these colleges we hoped that students would discover, by living and studying together, common ideals based on service and loyalty to the international community. We hoped they would then return to their own countries welcoming international diversity and convinced that international problems must be settled by reason and discussion—not by war."

Entry is by competitive examination and 80% of the students are financed by grants from their ministries of education or from UWC national committees. The teaching staff is equally international. The result is a high-level and at first sight "elitist" education—Atlantic College is one of the most expensive schools in Britain—but the social background is very wide, from taxi-drivers' to ship-owners' children, and former students testify that the atmosphere is far from sheltered. Working with different nationalities on a rescue team off the Welsh coast, for instance, is a fair way of losing prejudices (Atlantic College students are credited with having saved more than 100 lives); and if they live in a castle, the students' social work takes them into some very modest homes.

EEC backing

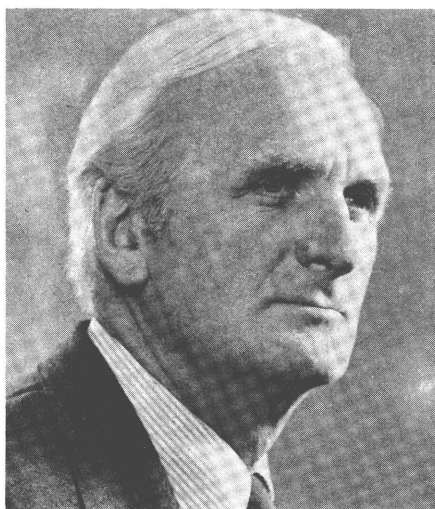
Now that the first formal links have been established between the UWC and the EEC, with talks in Brussels between Lord Mountbatten, Mr Jenkins, President of the EEC Commission, and Mr Cheysson, EEC development commissioner, there are good hopes that the Community will be able to further the movement, both in Eur-



The first ACP students, from Senegal and the Sudan, at Atlantic College

Robert Blackburn

Pioneer in international education



Mr Blackburn, who is Irish, is UWC International Secretary. A founder member and first deputy headmaster of Atlantic College, he founded the International Services Department of the United Nations Association and was also a founder member of the International Baccalaureate Organization.

He was the first chairman of the UK branch of the European Association of Teachers. Mr Blackburn's preferred forms of mental and physical exercise include modern history and sailing.

ope and in the ACP countries. Atlantic College now has students from West and East Europe, Russia, North and South America and Asia, including China and Japan. But the distance and the shortage of scholarship funds have left the ACP countries badly under-represented. It was an innovation for the EEC to sponsor students at pre-university level this year and it is hoped that the scheme can be substantially increased for the September 1978 intake, as there has been considerable interest in this from ACP authorities.

The planned UWC college in Swaziland, the Waterford/KaMhlaba school, is of particular interest in this context. Described by Mr Blackburn as "the only genuinely multi-racial school in this most strategic area", the plan is to develop the school as a regional college attracting most of its students from neighbouring ACP countries. Southern Africa is surely an area where "education must become an integrating force among nations".

UN support

United Nations Secretary-General Kurt Waldheim wrote recently: "Over the past few years the International Council of the United World Colleges has taken significant steps to further its goal of establishing a chain of international schools with the aim of working through the medium of education to promote a greater understanding between the different peoples of the world. It is no coincidence that we in



Lord Mountbatten, President of the UWC International Council, with Atlantic College students

the United Nations should warmly support and welcome an endeavour of this nature as education is an essential element in achieving the promotion of the economic and social advancement of all peoples as laid down in the Charter.

Today the importance of fostering such understanding is more apparent than ever by linking the process of education with service to the community and the disadvantaged. The objec-

tives of each of the colleges, sponsored by the International Council, are in conformity and entirely compatible with the aims and goals of the United Nations. Education has a vital role to play in the furtherance of international cooperation in a world whose problems are all inter-related. Each contribution towards reaching a better understanding among nations is of great importance to the achievement of these objectives." □



Sea rescue exercises off a dangerous Welsh coast

The protection and conservation of nature

by W. van WOUDEBERG(*)

Much has been written on the subject of the protection and conservation of nature, and even more has been said. But so far too little has been done to call a halt to the processes of the destruction of nature by human interference. This is in spite of the fact that the need for management of the environment has been internationally recognized: in 1972, a United Nations Environment Programme (UNEP) was established in order to provide for cooperation and coordination amongst governments and international organizations in environmental protection and improvement.

Although environmental problems are created on a world-wide scale, they were first recognized by people in industrialized countries, since they were confronted every day with the alarming and growing consequences of pollution. It is these industrial countries which will be the first to find solutions for their environmental problems; firstly, because they are aware of the desperate necessity, and secondly, because they are financially and technically in a position to do so. Yet, it is likely that in some cases, they may even transfer some of their environmental problems to developing countries—if, for example, it becomes more profitable to manufacture goods in a country where the necessary raw materials can be obtained locally, and where the cost of labour is less than on the consumer markets of the industrialized countries. It is this century's paradox that, willing to contribute to what is nowadays called "the new economic order", the rich countries assist developing countries in their struggle for survival, but in this struggle, where

there is no other way out, the riches of nature are prematurely exhausted. And then, again, it is evident that the rich countries must step in to help the developing countries tackle their environmental problems, since most are unable to tackle these themselves, because of lack of financial means and technical know-how.

This article is intended to draw attention once more to the immediate need for assistance to developing countries in order to help them to save their patrimony from destruction by mismanagement. Most of the developing countries are geographically situated in tropical climate areas, so the preservation of their landscape has its own special requirements. Drawing up an inventory of the land, followed up by classification and land-use plans, constitutes the framework on which both the best use and the protection of natural resources takes place. According to the third annual review of the United Nations Environment Programme, published in December 1976, present food production needs to be multiplied by four if the basic needs of the world population are to be met. Population estimates were 4000 million 1975, and are expected to exceed 7000 million by the year 2000.

In order to increase food production, we should not think in the first place of the quick-gain, short-term policy of applying additional fertilizer to land. Return to the land's basic production potential must have first priority, by restoring what has been destroyed by mankind. The present mismanagement of land use by deforestation, over-grazing, erosion of soil by wind and water, and the salinization of irrigated areas must be replaced by a constructive system of, for example, forestation, soil and water conservation, and proper

agricultural practices in the countryside; and, in the budding industrial towns by the recycling of much waste matter, and the careful disposal of poisonous or destructive wastes that cannot be recycled.

Enormous amounts of money are needed, and this can only be provided by the rich countries. Without this financial support, developing countries will have no chance in their struggle for survival. Their peoples' continued exploitation of natural resources will lead to their complete ruin.

During the appraisal of future development projects, in particular in rural areas, whether in the field of industrial and/or food-crop production, or in road and railway infrastructure, water supply, mining, energy-winning, industry, education or any other project, full attention is now to be given to the environmental aspects of each particular action. A substantial part of each new project is to be consecrated to the financing of such works as must be carried out in order to prevent damage to the environment, during and after implementation of the development project.

A few examples may contribute to make the reader aware of environmental side-effects of work carried out in developing countries and financed by exterior sources, in order to assist those countries to raise their standard of living. Many of our readers have seen these side-effects; some have observed them with dismay.

Take the construction of a new road in mountainous areas in Africa. Until now, there has never been enough money after earth-moving has taken place to protect the new slopes against erosion, by grass-planting, terracing and forestation.

(1) Commission Delegate in Ethiopia.

When new primary schools are built in mass-education projects, all too often the raw buildings are surrounded by trampled, bare earth. In only a few cases, the children are taught how to grow vegetables, how to irrigate them, how to grow trees, how to lay out an orchard. The surrounding area of schools, dispensaries, and community meeting places should always be forested—in particular schools, where the children may carry home these practices.

After the earth has been exploited by open-cast mining, the abandoned areas are left like a kind of moon landscape, ready for gully-erosion and land-slides. The minerals obtained from the mining are separated by washing with water pumped from valley rivers up to the hills, and thereafter the soils particles are carried away by the water running downhill, causing erosion, and silting up the rivers. Rural populations in developing countries, too poor to buy electricity or gas even if they are available, depend on fuel for domestic use. In many of the developing countries in Asia, Africa and Latin America, the domestic use of wood consumes yearly about 10% of the natural forest. In some arid or semi-arid regions, deforestation has gone so far that the once-forested land now has desert-like areas, where only dried cow-dung is left as fuel to prepare the daily meal; even this organic matter is not returned to the earth. If indeed it is still possible, it will take several generations to restore the agricultural production-potential of the land, not to mention the vast financial input needed; and not to mention the struggle to persuade man to look further than his own immediate needs, to the needs of his children and his children's children.

The few examples given above, many of them familiar to us, indicate how people close their eyes to the reality of the continuous breakdown of nature's equilibrium by human interference. They have been given to strengthen the contents of this article in order to evoke mankind's sentiments to handle the vulnerable biosphere more carefully and to draw once more the public attention to the consequences of overriding the principles of natural equilibrium. □

EEC food aid: progress, problems and prospects

Food aid is a serious and complex problem which reflects the serious, complex problems of the hungry themselves.

There is more to it than salving one's conscience by disposing of a few thousand tons of surplus grain or milk powder. This the donor countries, and the Community in particular, have understood. Food aid must be an integral part of the overall development cooperation policy and must be planned in the light of the international trade situation.

But although a good deal of progress has been made, we are still a long way from a solution. The food situation in the developing countries is deteriorating despite the good production figures of the last few years. And there is far too great a tendency for food aid programmes, those of the EEC included, to be piecemeal. The Nine, all the stronger for working together, must now deal with the issue as a matter of priority.

Before examining, and criticizing if need be, the Community's aid policy, we must, although everyone already has some idea of what is involved, take another look at the gravity of the world food problem. Future prospects give little cause for satisfaction.

The continuing food crisis

Recent harvests certainly seem to have put an end to the critical period of famine that struck so many countries. But for a quarter of mankind, malnutrition is on the increase. The respite from the continuing food crisis will be short-lived. In 1985, the developing countries' shortfall of just one of the essential items—grain—will be 110 million t.

Production over the last two years has attenuated the critical situation of

1973 and 1974 by enabling large stocks to be built up. Grain harvests have been better in countries with both planned and free market economies, although the 3.3% growth rate that the FAO (UN Food and Agriculture Organization) considers vital has not yet been reached and we are far from achieving the 4% fixed by the World Food Council in 1974.

Results in 1975 and 1976 were only just sufficient to enable per capita grain production in the developing countries to return to the 1969-71 level. This very slight improvement, moreover, did not benefit everyone and in 1976/77 the poorest countries, excluding Bangladesh, India and Pakistan, needed to import 9.6 million t of food, as against 8.4 million t in 1975/76 (source—FAO).

But what is even more serious is the fact that most developing countries became more dependent (for purchases and for grants) on the so-called rich countries. And sooner or later, the world will have to cope with a bad harvest in Asia or poor results in Russia and China.

Living from hand to mouth

The recent build-up of stocks by no means constitutes a decisive victory. At the end of 1976/77, grain stocks stood at about 155 million t, the highest level since 1972 (165 million t). This figure is the same as that for 1961—but there are now one thousand million more people to feed.

And then, of course, the piling up of reserves could well accentuate the slump in prices and discourage production.

There is still malnutrition everywhere, particularly on the Indian sub-continent. All estimates, however widely they may vary, are pessimistic about the situation in the Third World. The FAO says that the poorest countries

only covered 90% of their minimum needs in 1972/74, as against 92% in 1969/71. The IBRD says that, in 1975, more than a thousand million people were below the minimum food requirement mark—a deficit equal to 37-49 million t of cereals. Other sources claim that 60-88 million t would have been needed—20% or 30% more than the developing nations are currently able to produce (source-IFPRI).

The conclusion is clear. The world is still living from hand to mouth in a food crisis, that is continuing in silence.

Pessimism for the future

All the experts agree that the food situation in the developing countries will go on deteriorating in the future and countries with free market economies will have a shortfall of 70-80 million t of cereals in 1985 (sources-FAO & IBRD). Add the nutritional deficit and, the Commission suggests, the figure goes up to 110 million t. And this is a very conservative estimate ...

In all probability, these countries, particularly the poorer ones amongst them, will therefore see their per capita consumption drop even lower.

International aid can, of course, be used to launch production expansion programmes, in the Mekong Basin or in the Sudan, for example; but, in the short term, the impact on such an enormous problem would be minimal.

The target of a 4% p.a. increase (as against the present 2.6%) in food production in the developing countries would cost \$8300 million. This is the World Food Council's estimate. And then there are the World Bank's figures, suggesting that it will take \$5000 million p.a. if the 35 poorest countries are to produce the 45 million t extra grain they need every year.

Estimates in this field still vary widely, but they all paint a pessimistic picture, to say the least.

Better food aid

There is further cause for concern. The improvements to food aid policy called for by the World Food Conference are still far from being realized.

The developing countries now import almost twice the amount of grain they imported in the early '60s and food aid accounts for a far smaller share, falling short of the Conference's 10 million t target. Practically no progress has been made towards long-term planning of food aid supplies either.

A multianual supply plan would, nevertheless, be of enormous advantage from the nutrition point of view and also as:

- a development mechanism;
- a cohesive link between the beginning of production expansion programmes and the results they achieve;
- insurance against inevitable climatic variations.

The piecemeal policy currently practised by most donor countries in this field is now inadequate. They must stop thinking in terms of annual programmes and start planning regular supplies over long periods. Aid must also be selective, i.e. channelled to the most needy and vulnerable populations.

The obvious criticism is that food aid is a poor means of meeting current needs. But it has a part to play—perhaps even a decisive one—in the short term, provided it can be made really effective. It must be adequate in terms of volume and planned to cover a certain period of time.

From this point of view, the EEC has clearly not yet lived up to expectations. The discussion of food aid policy within the Community is now open.

EEC food aid progress and problems

What has the EEC done, what is it doing and what more could it do about the urgent problem of malnutrition? Here is a brief summary of what has been done to date.

The beginnings

On 1 July 1968, the Food Aid (Cereals) Convention, one of the upshots of the Kennedy Round of 1964-67, entered into effect. The EEC's

contribution was fixed at 1036000 t, 23% of the total, as against 42% for the US.

Under this agreement (later renewed), Community deliveries rose to 1151000 t in 1972/73 and 1287000 t in 1973/74 when the three new member states joined. The amounts were divided between Community and national schemes, the latter accounting for 70.9% in 1968/69 but only 55% in 1973/74.

There were three kinds of aid—emergency aid, nutritional aid and ordinary aid—intended to help recipient countries save foreign exchange for other purposes.

In the early years, aid went (in decreasing order of quantities) to the Far East, Africa, the Middle East, the Maghreb and Latin America.

The EEC began sending milk products in 1970, in response to requests from both international organizations and the developing countries themselves. Moreover, the Community had considerable reserve stocks of these products.

Supplies, sporadic to begin with, became regular in 1974. In 1970, 127000 t (120000 t for the WFP) of milk powder were provided. In 1972, 60000 t of milk powder and 15000 t of butteroil were sent, although there were no schemes of this kind the previous year. 13500 t of milk powder were provided in 1973, and 55000 t of milk powder and 45000 t of butteroil in 1974.

From the outset, this type of aid, contrary to what happened with cereals, was organized on a Community basis. Three criteria were adopted—the situation on the Community market, requests from the Third World and the actual needs of the Third World, calculated primarily on the basis of their usual possibilities of importing milk, oils and fats. Care was needed to ensure that the free supplies did not distort trade in the sector, particularly to the detriment of the EEC itself.

Finally, in 1973, food aid included, for the first time, sugar consignments (of an average 6000 t every year) to UNRWA (the UN Relief and Works Agency for Palestine Refugees). It also included a one-off scheme involving donating 500 t of egg products to the WFP.

Commission proposals in 1974

As Community food aid came into being, the Third World's situation deteriorated, largely because of the international food market crisis. This led to the World Food Conference in November 1974, when donor countries were called upon to make a greater effort.

In March and November of the same year, the Commission presented the member states with two reports on a new policy for development aid. The Nine have not so far reached any firm conclusions as to these reports, but much of what was proposed has already been put into practice.

One of these two documents on food aid suggested that the prime aim was to boost agricultural production in the Third World. Donations from the industrialized countries should not, therefore, hamper progress within this field, but simply allow recipients to use some of their financial resources to acquire their own means of production.

The Commission then outlined the four shortcomings of Community action—the small volume of supplies, commercial motivation in the case of milk products (stocks), slow-moving procedure and the absence of any longterm plan of commitments.

It used this as a basis for suggesting that the Community:

- draw up a three-year programme to ensure continuity of supplies;
- supply a variety of products, primarily processed cereals and powdered egg;
- step up quantities, increasing cereals, for example, from 1.28 million to 1.7-2.5 million t;
- simplify the decision-making process.

Although these proposals have been approved by the European Parliament and the Economic and Social Committee, the various governments cannot reach agreement, particularly on multi-annual aid planning.

Priority to the poorest

Requests for Community aid (cereals) are constantly on the increase. They involved more than 2.4

million t in 1974/75, the years when deliveries became even more concentrated on the poorest countries.

In 1974/75 and 1975/76, the Indian sub-continent and the Sahel were the priority areas and in 1976/77 emphasis was more on the Middle East and eastern Africa.

Except in emergencies where there is a risk of famine, there are three criteria for selection. There must be a food shortfall, an annual per capita income of less than \$300 and a balance of payments deficit. An increasing percentage of aid (13.2% in 1974/75 and 16.7% in 1976/77) now goes to international organizations, particularly the WFP.

Finally, the Community share of the Nine's 1287000 t contribution under the Food Aid Convention, which is renewed for periods of one or two years at a time, was stepped up to 56% in 1976/77, as against 55% in 1975/76 and 50% in 1974/75.

EEC deliveries of milk products have stabilized. The butteroil consignment has stood at 45000 t p.a. since 1974. The figure for milk powder was 55000 t in both 1974 and 1975, but the developing countries' needs and the fact that the Community had considerable stocks at its disposal led to the figure being put at 150000 t in 1976. The Council of Ministers in fact fixed it at 200000 t, 50000 t of this being for 1977.

This year, 105000 t (55000 t + 50000 t) of food aid, plus a further 45000 t voted at the insistence of the European Parliament, have been provided.

The Commission now intends proposing that the EEC adopt regular 150000 t milk powder programmes as from 1978. The proposal will be accompanied by an in-depth study of both the prospects offered by supplies of this product and of the problems involved.

The principal beneficiaries of milk products are, here again, the poorest countries (especially those of the far east), Bangladesh, for example. Selection here is based on similar criteria as for cereals, a daily ration of 30 gr of milk powder and 20 gr of butteroil being the basis for calculation.

However, there are four special factors to take into consideration in this sector. One, the Community is the world's leading supplier and, as such,

has a special responsibility towards the countries of the Third World. Two, supplies can be processed (milk powder + butteroil = full cream milk) at their destination. Three, milk powder is easily mis-used (lack of vitamin A) and therefore has to be enriched. Four, in some cases there are no local reconstitution plants or storage facilities. All this partly explains why deliveries are restricted.

Then, the Community's food aid (milk products) programme has also been increasingly geared away from support for the balance of payments towards direct assistance with specific projects, particularly nutritional and development schemes.

This new trend could ensure that aid in the form of milk products is more effective and could provide tangible support for the emerging policy of developing milk production in the Third World.

Finally, the EEC has continued providing its sugar consignments to UNRWA, providing 6100 t in 1975 and 6094 t in 1976.

The Commission tries again

The Commission has now proposed—unsuccessfully again—a three-year (1977-1979) indicative programme as summarized below:

| Product | Annual target | Commitments for 1976 |
|-----------------------------|------------------------------|----------------------|
| — Cereals | 1 650 000 to 1 500 000 | 1 287 000 |
| including Community schemes | 1 077 000 to 1 350 000 | |
| — Milk powder | 150 000 to 175 000 | 150 000 |
| — Butteroil | 45 000 to 55 000 | 45 000 |

As far as cereals are concerned, the plan was an answer to the international organizations' frequent criticism of the Community for failing to respond to the appeal launched by the World Food Conference. The Council has only so

far taken a decision on the principle of three-year planning.

The effort called for in the milk powder sector was reasonable, bearing in mind that aid has positive results in that it boosts investments in both infrastructure and the dairy industry in the recipient countries. Finally, the suggestion for butteroil was a conservative one, which took both the developing countries' capacity for consumption and Europe's processing possibilities into account.

Problems of content and form

The question of what Community aid should consist of has not yet been fully resolved. It involves many, often inconclusive, discussions and a variety of attitudes on the part of the member states. The Nine are still unable to agree on the size and continuity of EEC commitments. Neither can they agree as to the advisability of setting up a system of regular supply contracts at competitive prices, although this sort of trade policy would, if properly run, be of real benefit to the Third World, for which present donations are inadequate,

and compatible with European interests.

As far as quantities are concerned, the budgetary means allocated by the Council are still quite inadequate to meet the developing countries' needs or to answer the regular appeals from international organizations. The Community cereals schemes should never have involved less than a million tonnes. But they always have done.

In 1975, food aid represented almost 50% of Community financial aid, but only 5.5% of the net payments the member states themselves made to the Third World \$330 million of the total \$6000 million devoted to national (4300 million) and multilateral (1700 million) schemes, of which 670 million was channelled via the Community and 1700 million via other organizations, such as the UN.

Time is also a problem in view of the complicated procedure that still has to be followed, leading to late delivery and inadequate supervision as to how the products should be used. Progress has been made, but there is still a long way to go, particularly bearing in mind the fact that certain member states do not manage to adopt their intended national programmes in time.

Too many national differences

Community food aid deserves more than negative criticism. There have been clear improvements. There are regular increases in quantity, there is a wide range of products, emergencies are covered and priority goes to the poorest. This is real progress in line with Commission policy.

Total expenditure on food aid over the 1968-1975 period was \$525.5 million in Germany, \$368.9 in France, \$227.1 million in Italy, \$192.2 million in the Netherlands, \$177.2 million in the United Kingdom, \$108.2 million in Belgium and \$86.2 million in Denmark (source-OECD).

However, the member states do not all give the same importance to aid of this type. Those that export food products, cereals and milk products are in favour, but the net importers prefer financial and technical aid aimed at developing agricultural production in the Third World.

Furthermore, some member states display particular reluctance because of the financial burden that food aid imposes.

Anticipated growth of food imports required by developing countries with a food production shortfall (1961/3-1980)

| | 1961-63 | 1964-66 | 1970 (estimate) | 1980 (projection) |
|--|---------------|---------------|--------------------|----------------------|
| Estimated volume of imports required (in million metric tonnes) | | | | |
| Cereals | | | | |
| Africa | 2 610 | 2 814 | 3 693 | 5 382 |
| Latin America | 5 550 | 6 811 | 3 594 | 10 507 |
| Middle East | 4 000 | 4 703 | 5 387 | 9 418 |
| Far East | 11 160 | 15 113 | 12 975 | 10 940 |
| Total cereals | 23 320 | 29 441 | 29 649 | 36 247 |
| Milk and milk products (a) | 1 088 | 3 767 | 5 089 | 19 770 |
| Oils and fats (b) | 1 040 | 1 380 | 1 934 | 4 046 |
| Sugar | 3 370 | 3 859 | 4 218 | 5 174 |
| Meat | 515 | 541 | 685 | 1 839 |
| Value of import requirements at 1970 prices (US \$ million) | | | | |
| Cereals | 1.7 | 2.2 | 2.2 | 2.5 (6.1)(1) |
| Milk and milk products (a) | 0.1 | 0.3 | 0.4 | 1.5 (2.2)(1) |
| Oils and fats | 0.3 | 0.4 | 0.5 | 1.1 (1.9)(1) |
| Sugar | 0.4 | 0.4 | 0.5 | 0.5 (1.4)(1) |
| Meat | 0.4 | 0.4 | 0.5 | 1.3 (2.6)(1) |
| Total | 2.9 | 3.7 | 4.1 | 7.0 (14.2)(1) |

(a) in milk equivalent, butter excluded.

(b) butter included.

(1) based on world prices in the last three months of 1973.

Source — FAO estimates.

Breakdown of food aid commitments by programme, product, quantity and value (estimate at world price)

Cereals programme (commitments)

| | 1968/69 | 1969/70 | 1970/71 | 1971/72 | 1972/73 | 1973/74 | 1974/75 | 1975/76 |
|----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Quantity (t) | | | | | | | | |
| Community schemes | 301 000 | 337 000 | 353 000 | 414 000 | 464 400 | 580 000 | 643 500 | 708 000 |
| National schemes | 734 000 | 698 000 | 682 000 | 621 000 | 696 600 | 707 000 | 643 500 | 579 000 |
| Total | 1 035 000 | 1 035 000 | 1 035 000 | 1 035 000 | 1 161 000 | 1 287 000 | 1 287 000 | 1 287 000 |
| Value (million EUA) | | | | | | | | |
| Community schemes | 19.6 | 21.9 | 30.7 | 29.4 | 71.0 | 110.2 | 86.87 | 97.9 |
| National schemes (1) | 47.7 | 45.4 | 59.3 | 44.1 | 106.6 | 134.3 | 86.87 | 80.1 |
| Total | 67.3 | 67.3 | 90.0 | 73.5 | 177.6 | 244.5 | 173.74 | 178.0 |

Other products (commitments)

| | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 |
|----------------------------|--------------|----------|-------------|-------------|--------------|-------------|---------------|
| Quantity (t) | | | | | | | |
| Milk | 127 000 | — | 60 000 | 13 000 | 55 000 | 55 000 | 150 000 |
| Butteroil | 37 000 | — | 15 000 | — | 45 000 | 45 000 | 45 000 |
| Eggs | — | — | 500 | — | — | — | — |
| Sugar | — | — | 6 150 | 6 062 | 6 094 | 6 100 | 6 094 |
| Value (million EUA) | | | | | | | |
| Milk | 73.4 | — | 39.1 | 8.9 | 46.0 | 30.2 | 76.98 |
| Butteroil | 57.9 | — | 19.6 | — | 61.1 | 64.1 | 68.95 |
| Eggs | — | — | 1.2 | — | — | — | — |
| Sugar | — | — | 1.6 | 1.9 | 3.7 | 2.3 | 2.33 |
| Financial contribution | — | — | 1.6 | 1.6 | 3.8 | 2.6 | 1.00 |
| Total | 131.3 | — | 63.1 | 12.4 | 114.6 | 99.2 | 149.26 |

(1) Calculated at the same average per tonne as for Community schemes.

Programmes in 1976/77 (commitments)

| Product | quantity | Value (million EUA) |
|-------------------------|-----------|---------------------|
| 1. Cereals | | |
| Community schemes | 720 500 = | 81.2 |
| | 56% | |
| National schemes | 566 500 = | 63.8 |
| | 44% | |
| 2. Milk products | | |
| Milk powder | 150 000 | 56.5 |
| (first instalment) | (105 000) | (41.5) |
| (second instalment) | (45 000) | (14.0) |
| Butteroil | 45 000 | 47.0 |
| Value | | |
| Community schemes | — | 183.7 |
| National schemes | — | 63.8 |
| Total | — | 247.5 |



EEC food aid for Vietnam

Opinions also vary as to how aid should be shared between the Sahel, India, Pakistan, Bangladesh and so on.

The last bone of contention is what stress to lay on multilateral schemes. The United Kingdom, the Netherlands and Denmark put more emphasis than their partners on the role of international organizations, such as the World Food Programme.

This is a brief summary, but it shows the complexity of the task facing the officials in Brussels whose job it is to rationalize, coordinate and plan the Community's food aid programme.

Striking a balance

All these difficulties arise from the fact that food aid is not a flexible means of accelerating development.

Many factors have to be borne in mind, primarily the normal patterns of trade (which must not be upset) and the EEC's common agricultural policy with its production requirements and trade problems. Food aid must also fit in with the efforts made by the Third World to develop its own production.

Obviously, free delivery of cereals or milk powder is not, and cannot, be an end in itself. It is part of the overall strategy of cooperation.

In-depth discussion

The discussion is now open. The following improvements could prove profitable in the medium term:

- a substantial increase in quantities, particularly of cereals;
- multiannual supply planning;
- an increase in the Community share of aid in the form of cereals;
- the simplification of the EEC decision-making procedure in this field.

The inevitable question in the long term is to decide on the targets of EEC food aid. Opinions still differ, although three rough tendencies emerge:

(1) Food aid, primarily intended to meet the developing countries' needs, is only a temporary means of speeding

up the economic modernization of the Third World, this process being likely to increase the external outlets of European industries later on.

(2) Food aid is part of a trade policy aimed at developing regular trade and, thus, increasing possibilities of sale of Community agricultural products.

(3) Food aid is of minimal interest to the donor countries.

Trends over the last 30 years seem to suggest that (1) and (2) are right and

(3) is wrong. Food aid has helped promote the economic development of the Third World and it has encouraged trade between underdeveloped and donor countries.

Food aid is a complex matter with many implications. A balance must be struck between the interests of the Third World and the demands of the industrialized world.

This is what the Community is seeking to do. □



Unloading wheat flour in Chad during the drought.

SUDAN

The new University of Juba

by G. WATTERSON (*)

On 6 October 1977, President Numeiri of the Democratic Republic of the Sudan, officially inaugurated the University of Juba, the first to be created by the Sudanese themselves.

After independence in 1956, the Southern Sudan was, for 17 years, plunged into darkness and chaos by civil war. Ten months after the first Regional Provisional Government was set up in 1972, under the new regime of May 1969, the idea of a university in the Southern Region was conceived. The National Research Council was commissioned to study the matter, and under the leadership of its secretary-general the establishment of a college of natural resources and a college of education were recommended.

Early in 1975 the University of Khartoum established a Centre for extramural studies in Juba. In November 1975 a Republican Decree reorganized higher education in the country, to provide for equitable distribution of education opportunities among the different regions of the Sudan, consolidation of national unity through education, and the development of strategies, policies and institutions which are both related to the realities of the country's varied environments and responsive to the challenges of our times. The Decree established the University of Juba as an independent degree-awarding institution.

Dr El Sammani Abdalla Yacoub, the Secretary-General of the National Council of Research originally charged with initiating higher education in the Southern Region, is now the University's first Vice-Chancellor and the driving force that has kept the concept going and brought it to its present first phase of fruition.

The University of Juba represents the first and foremost achievement within

the context of the Sudan's new education strategy, conceived to counter three major existing deficiencies: over-emphasis on traditional academic training, the low prestige of technical education, and a marked inequality of regional distribution of educational opportunities.

The inauguration of the Juba University is also one of a string of achievements in the education pipe-line. Abu Hugar Agricultural University is to be opened shortly; next year will see the inauguration of the University of Gezira, and of Abu Haraz Agricultural Institute. In 1979 the College of Agricultural and Veterinary Studies for Arid Zones will open in Darfur, in the West, as will the College of Petrol and Mineral Studies in Eastern Sudan, followed by the Higher Institute for Food Technology in Northern Sudan. As the President said in his inaugural statement, plans are under way also for Universities in Wau and in Malakal, both in the Southern Region.

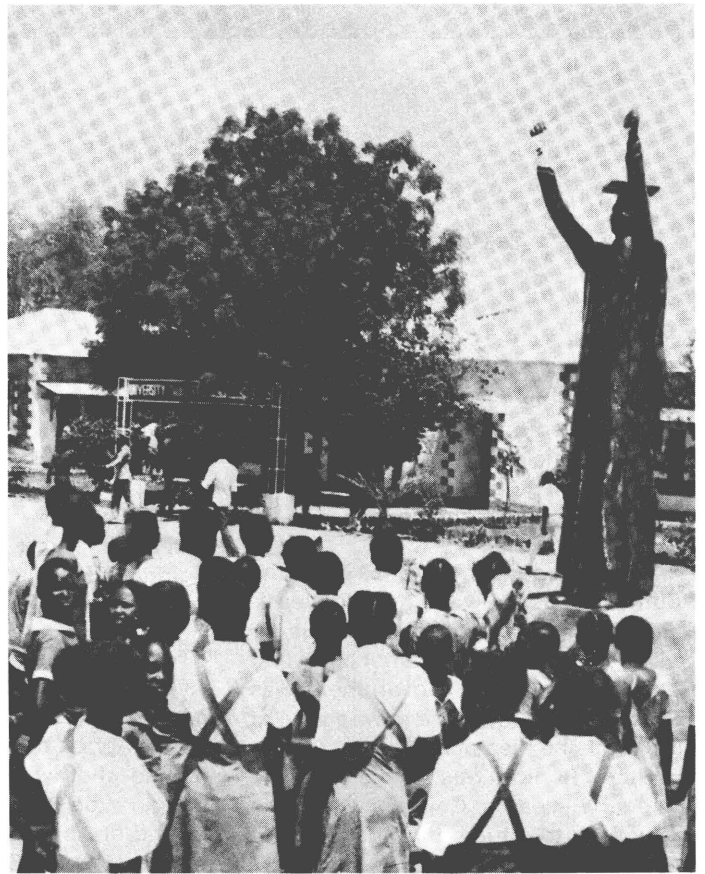
With its colleges of natural resources and environmental studies, social and economic studies, education and adult education and training, Juba University is no mere duplication of what exists already. It is essentially an institution of practical learning and research which is relevant to its environment and to the special developmental needs of the Southern Region. Within this context, priority is given to southerners who qualify to enter the university. Of the 150 men and women students of the first-year's intake, over half are from the Southern Region, the rest coming from different parts of the Sudan. Juba is thus one of a series of existing or planned "national" universities, calculated to contribute to the stability, peace and unity of the country as a whole. But the intention is to broaden its scope to become, not just "another university in Africa, but rather an African university", to serve both the Sudan and its sister nations, open to 1000 students by 1981, and with a highly-qualified academic staff drawn from the Sudan and from outside the country, rising from the present 25 to 200 (including teaching assistants) by 1981 and reflecting the Sudan's special location at the cross-roads between Africa and the Arab world.

Juba University also represents a new departure from the traditional con-



President Numeiri opens Juba University with the Vice Chancellor, Mr El Sammani (right).

(*) Commission Delegate to the Sudan.



On the campus.

Around the memorial plaque: General Numeiri with the new university's Vice Chancellor and the Sudanese Vice President, Abel Alier (president of the High Executive Council of the Southern Region).

cept in that it will combine class-room learning with a great deal of practical training directly linked to the skills and demands of the local equatorial environment and its development potential. Eight extra-university-campus centres are being created in the Southern Region for the purpose of research and practical experience, two for wildlife management, two for forestry, one for tropical agriculture, one for livestock husbandry, and two for fisheries and water resources.

The programme foresees an initial 3-year "diploma" course producing practical, hardy men and women, the first of whom will, by 1980, be able to respond to the field requirements of skilled personnel. After 1-2 years of field experience, those who qualify and wish to return for a further 2-year "degree" course, may do so.

After financing the international IUC-led team charged with conducting a planning and programming study for

the initial and overall establishment of the University, the European Development Fund has already assisted the Sudan's own efforts to create the physical facilities for the first intake of students, through an initial 2 million EUA grant for a housing scheme to provide the teaching staff with proper accommodation, of which there is a chronic shortage in Juba; — complementary training facilities and adequate equipment for the existing buildings refurbished on the Sudan's own budget; — and some infrastructural complement in respect of water and electricity supply.

The Federal Republic of Germany has donated scientific equipment, a number of teacher-training fellowships, and is to establish the College of Adult Education based upon the facilities already provided by them for extramural studies in this field.

The CEC/EDF Delegation is, in the context of further integrated assistance

from the European Community, organizing joint meetings with the local representatives of the Member States and the University authorities to determine future needs of the expanding University over the short and medium term.

Among other donors are the Kuwait, which also provided scientific equipment; the Arab League's cultural wing (ALESCO) which has contributed to a language laboratory; and the international non-governmental organization "ACROSS" which contributed buildings, books, more scientific equipment and lecturers.

The outcome of the overall IUC-led team report is now anxiously awaited to help determine what might be the EDF's further and major contribution to the establishment of the main university campus, some 15 kms outside Juba-town on the East bank of the White Nile, to leave the present town-campus for the new College of Community Medicine. □

NIGER

The Toula hydro-agricultural scheme

by Pasquale RAIMONDO (*)

Toula is on the left bank of the Niger, 100 or so km above Niamey. The scheme is part of the Niger government's policy for achieving self-sufficiency in food by making maximum use of underground and surface water. The aim is to alleviate the hazards of climate. No-one needs reminding of the disastrous effects of the last drought.

The EEC followed its usual policy and contributed a grant of 2700664 EUA, equal to some CFAF 750 million, from the EDF (Agreement No. 1173/N1 of 8 February 1974) to the financing of the Niger Valley-Toula Basin Development project.

This project was not just geared to providing hydro-agricultural infrastructure of high technical quality. It also aimed at helping the people involved to make the area productive and take over its management, via a cooperative system, as soon as possible.

The improvements involve growing rice on flat plots. Full water control is achieved by an irrigation network and a drainage system handles excess water and runoff. Water is pumped into the area from a station containing four vertical pumps with a total capacity of 860 litres per second.

A total of 350 ha is enclosed by dykes, of which a maximum of 265 ha (260 ha net) is irrigable. The area is divided into 1043 plots of an average 25 ares each.

Two crops can be grown each year:

- winter (10 June - 10 November),
- rainy season (10 December - 10 May).

The individual plots have been shared out among the inhabitants of

the six surrounding villages by a committee chaired by the Administrative Authority. The main criterion for selection was the availability of agricultural work units (UTA) on the farms. 506 families (3175 people in all) have now been allocated an average of 47.82 ares of land.

The recipients have already been organized into Mutual Production Groups (GMP), the basic units of the cooperative. Each group has its own independent 40 ha irrigation network or sector. Each sector is divided into plots of between 0.2 and 0.3 ha. The GMP's make up the Toula Cooperative, which has its own development committee to decide what needs to be done and a management committee to implement the decisions. All cooperatives come under UNCC, Niger's cre-

dit/cooperation union, which is in overall charge of the project.

At the end of each agricultural year, each farmer has to pay dues to cover salaries of UNCC administrative service staff in the field.

Dues cover:

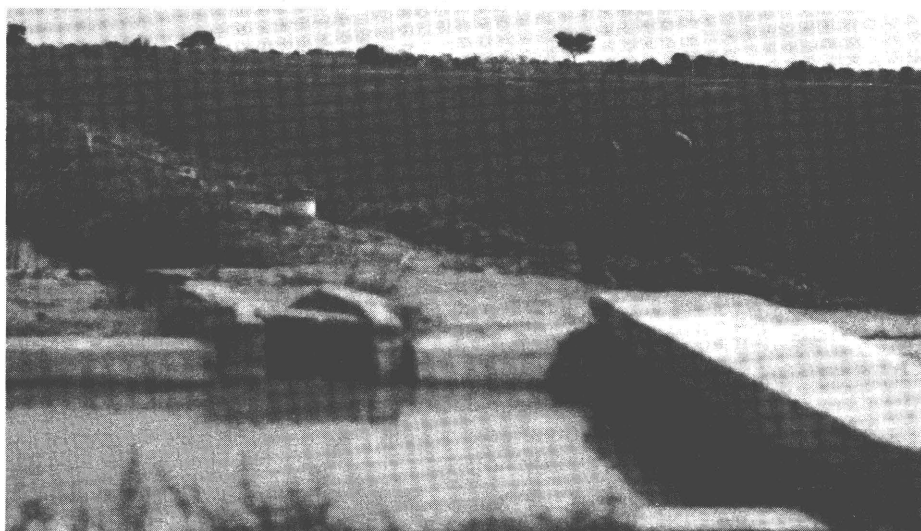
- pumping station operating costs;
- amortization of equipment;
- major maintenance works;
- seed, fertilizer, insecticide, etc;
- management costs and interest on loans.

Methods are based on the active participation of members of the cooperative. Many good results were achieved during the first four seasons, although only 20% of the farmers were familiar with the relevant irrigation techniques at the outset.

The farmers' willingness to adapt to the new techniques of the 100% irrigation method was the key factor in the successful results of both production and management.

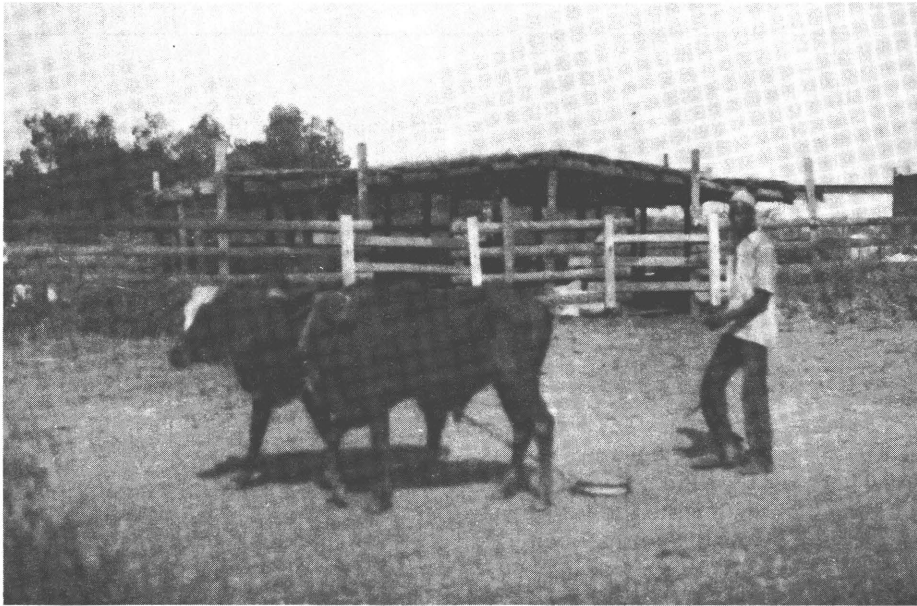
Unit yields have far exceeded the figures (4 t per ha per season) originally forecast:

| Paddy rice | 1 | 2 | 3 | 4 |
|------------|---------|-----------|---------|-----------|
| Yield | 4.6 t | 5.7 t | 5.2 t | 4.9 t |
| Production | 1 133 t | 1 368 t | 1 248 t | 1 199 t |
| Increase | + 115 % | + 142.5 % | + 130 % | + 122.5 % |



Irrigation safeguards the Toula valley from drought.

(*) EEC delegation technical attaché in Niger.



Stable and oxen used in the project.



Growing techniques (sowing, planting out and chemical dosage) have been rigidly adhered to. This has enabled the Toula Cooperative to play an important part in the production of seed (IR 22) to be supplied to other hydro-agricultural improvement schemes in the valley.

The unity and organization of the farmers, the practical expression of their desire to make a joint effort, has meant that the sprinkler and tracks have been kept in good repair, nursery labour costs have been cut (CFAF 880 in the first season) and there has been a 36% drop in dues (CFAF 26000 as against the original CFAF 40800 in the plan of campaign). Toula is the only area in the valley which has 100% coverage of dues.

A joint fund, one of the benefits of sound management, has been set up. It is financed from profits from sales and has provided seasonal loans for more than 100 farmers. The results are all the more significant in that extra schemes, not covered by the original project, have also been run. The Toula Cooperative is profiting increasingly from the principles of integrated development. The EDF has helped with:

- the planting of 35000 young eucalyptus trees over about 4 km to counter the effects of the prevailing winds which cause erosion and drying and to provide wood for sale later;

- 40 animal-drawn tillage teams, enough to supply all the labour requirements of the area;

- 20000 *Tilapia Nilotica* dry to stock an 8 ha artificial lake, where most of the water from the improved area drains. This now yields an abundant catch.

The aim of these additional schemes is to provide the Toula Cooperative with the workers who will soon run it for themselves.

The project has produced the following results:

- The gross agricultural product on the improved area itself has gone from F 2450000 to F 105000000 (net value added = CFAF 88400000 p.a.).

- Net income on the average holding has risen from CFAF 12250 to CFAF 176000, providing a considerable rise in the farmers' standard of living.

There are other effects:

- On employment, particularly of the rice-growers. 560 (previously 100) farmers are now involved and a total of 2400 (previously 400) are employed there.

- On Toula's yield. The increased production of paddy rice means that utilization of the Tillaberry rice mill has now risen from 60% to 75% of its capacity.

The project is clearly useful and effective.

- At technical level, the quality of the infrastructure has kept running/maintenance costs very low compared to those of other improvement schemes. The irrigation network has proved very easy to understand and run.

- As far as production and yield are concerned, results have far exceeded original targets.

- The methodology and organization at Toula have lived up to expectations. This is borne out by the fact that the authorities have now decided to apply Toula methods in other hydro-agricultural schemes in Niger.

Finally, the fact that the Niger authorities and external sources of financing, particularly the IBRD, are using Toula as a model for future agricultural investments is further proof of the success of the project and a feather in the cap of the UNCC, which is running it. □

Questionnaire for "Courier" readers

Please fill out this questionnaire legibly, send it in and you will help us meet your needs and improve the "Courier", the magazine which, for the last seven years, has been covering development cooperation and providing a link between the ACP and EEC countries. Send your answers to:

The Editor,
The Courier EEC-ACP,
Berlaymont 2/7,
200, rue de la Loi,
1049 — Brussels
Belgium

1. How long have you been reading the "Courier?"

- 2 months 6 months a year or more

2. How do you receive it?

- by subscription
 from the library, university or school
 from a friend
 from the ministry
 from your firm
 other

3. How often do you read it?

- regularly sometimes

4. When did you get this issue?

.....

5. Which parts do you like best?

- editorial
 interviews
 surveys of (people from) industry
 Africa, Caribbean, Pacific
 in perspective
 dossier
 developing world
 the arts
 sport
 news round-up

6. What other topics would you like to see covered?

.....

.....

.....

7. Do you find "Courier" articles:

- easy to read?
 fairly easy to read?
 difficult?

8. How do you find the layout?

- good
 average
 poor

9. How does the "Courier" fit in with your idea of and concern about economic cooperation with your country?

- well
 a little
 not at all

10. Do you reread certain articles?

- once more than once

11. Has the "Courier" really taught you anything about:

— other African, Caribbean and Pacific countries?

- yes no

— EEC policy towards the developing countries?

- yes no

12. What other magazines do you read?

1.

2.

3.

4.

5.

13. How useful is the "Courier" to you overall?

- very fairly not very

14. What are your main criticisms of the "Courier?"

.....

.....

15. Have you any suggestions?

.....

.....

.....

16. Personal details of "Courier" reader

Name and forename

Address

.....

.....

Town

Country

Occupation or profession: are you a:

- civil servant
 employee in the private sector
 craftsman
 student
 farmer
 secondary/primary school pupil
 young unemployed
 other (please state)?

BOOKS

Andrew M. KAMARK. — **The tropics and economic development.** — An unique survey of the poverty of nations. — IBRD, 144 pages — 1977

This book marks a new approach to the problem of development in the tropics, since the author stresses the negative effects of the tropical climate on economic development. Recent economic studies of development have tended to skate over the correlation between climate and development, unlike the old geographers who saw very well how the two tied up.

Mr Kamark emphasizes those features of the tropical climate that have a fundamental influence on economic development. The tropics are usually fighting sickness, soil erosion, malnutrition, meagre rainfall and a lack of irrigation. In the tropics, season is determined by the amount of rainfall. But rainfall varies enormously from one season to the next and one year to the next, and there is either a great deal or very little. The author notes that it is so hot even in winter that nothing ever stops growing—weeds, birds, parasites, spiders, worms, microbes, or the whole range of insects and viruses that grow at the expense of man, his cattle and his crops. The infinitely polymorphic life cycle of the tropics is a continuous fierce battle for the survival of the species and any generation or species leaves relatively few survivors.

The tropical climate also directly counters man's productivity, creativity and initiative. It is a major drawback to economic growth in the developing countries.

The author feels that answers to the harmful effect of the climate on man and his surroundings can be found in a collective approach whereby experts from many different but complementary fields—geography, meteorology, biology, zootechny, medicine, engineering and economy—join forces.

Kamark feels that we must tame and harness the climate, by means of a strong and determined effort in the field of fundamental and applied research, if we are to minimize the effects of its almost deterministic impact.

ooo

Michel PROUZET. — **The Togolese Republic.** — Collection Encyclopédie Politique et Constitutionnelle, published

under the aegis of the International Institute of Public Administration, Africa series. — Editions Berger-Levrault, 5 rue Auguste Comte, 75006, Paris. — 58 pages — 1976 — FF 22

Berger-Levrault have brought out this small book, packed with precise information, under the aegis of the International Institute of Public Administration. It is one of a series which will gradually be built up into a political and constitutional library of the Third World. The idea is that each volume in the series should provide as full a set of basic information as possible on a given country in less than a hundred pages.

In the first part of the book, Michel Prouzet, lecturer at the University of Benin, describes the main features of the Togolese political scene today. Developments show the importance of the army and the Chief of State and the osmosis between the state and the sole party, the Togolese People's Assembly. In the other two parts, the author provides a useful list of texts on the constitution, legislation and regulations and a methodically classified bibliography to facilitate further research.

Michel Prouzet used to teach in the University of Togo and has always remained an impartial observer of the way the country has developed. This book was written in the sound academic tradition and is sober, calm and uncompromising. It is free of polemics yet not uncritical. Briefly, it is intended as and succeeds in being the essential starting point for any future work on Togo.

ooo

J. FORBES MUNRO. — **Africa and the International Economy, 1800-1960.** — Edition J.M. Dent & Sons, Aldine House, 26 Albemarle Street, London W1X 4QY — 230 pp. — £ 2.95

From being on the extreme periphery of world trade in 1800, the African economies by 1960 had become integral parts of the global system of production and exchange. Once the slave trade had been eliminated, African agriculture, trade, economic organization and industry all flourished. Of course there were fluctuations and checks—during the imperialist phase, for instance, and again during and between the two world wars—but in general the greater participation in

world economy contributed directly to the expansion and diversification of productive capacity in Africa.

In a clear and comprehensive account, J. Forbes Munro emphasizes this integration into, and shaping of African economies by, the modern international economy. He first describes the new directions in the economy from 1800 to 1970, then the effects of British, French, Belgian and German intrusion, and the response of the African economies to war and depression. He concludes by examining the terminal phase of colonialism from 1945 to 1960. At each stage he contrasts developments within the various regions—West, West-Central, Eastern and Southern Africa—so that the pattern of growth clearly emerges. This book at last fills the needs for an authoritative overview of this important subject.

J. Forbes Munro teaches economic history at the University of Glasgow. He is the author of "Colonial Rule and the Kamba" (OUP).

ooo

Susan GEORGE. — **"How the other half dies — The reasons for world hunger"** — Published by Penguin books — London at £ 1.00. — 1976

"If it takes you six hours to read this book, somewhere in the world 2500 people will have died of starvation or hunger-related illness by the time you finish." With this terrible statement Susan George ends her introduction to this book which is a follow-up to an earlier study of world hunger written in 1974 as a counter report for the World Food Conference of that year. The book is blunt in accusing the western industrialized countries of responsibility for world hunger, and equally blunt in attacking the "liberal" and technical solutions proposed by most western-dominated aid organizations. "Some readers," the author writes, "may find that this study is unduly controversial, tendentious and partisan. I should certainly hope so." It is in fact a very political book because it argues that the solutions to world hunger are not technical—finding new farming methods, land reform, birth control and so on—but depend first and foremost on social and economic change. Susan George blames the control of food production by the West for the world food problem. She asserts that there is enough food, but it does not reach the

needy, because it is under the control of the rich. "Multinational agribusiness corporations" and "supposedly neutral multilateral development organizations" also come under attack, the former for their greed and power, the latter for their ineffective solutions. Whatever the reader may think of the hard line taken by Susan George in this study, and there will be many who will find it too simplistic, it cannot be said that it doesn't provoke thought on the problem of world hunger. It aims to change current views of the world food supplies as a first step to the radical social and economic change the author believes is necessary before world hunger can be ended. IJP.

"Opportunities and prerequisites for an Increased Export of Manufactures goods from the ACP states to the EC market: the example of Kenya." A study by the German Development Institute, Berlin, led by Manfred J. Hendrich.

This is one of a series of studies by the GDI on relations between developed and developing countries, and concentrates on industrial cooperation and export promotion for the more advanced developing economies, in this case Kenya. The researchers went to both sides and interviewed people at all stages of the trade process from producers and exporters, through to carriers, importers and retail traders. It also considers the context in which the trade in manufactures takes place, the market information available to the exporter, market trends, administrative regulations and international agreements, such as the Lomé Convention. The report emphasizes the importance for a country like Kenya of selective export industrialization, based on the concept «as much export of manufactured goods as necessary to obtain the required foreign exchange, and as much as possible with respect to the relative competitive status of the individual product." The report welcomes the section on industrial cooperation in the Lomé Convention because it recognizes that simply opening up markets is not enough to stimulate trade in manufactures, but goes on to doubt that within the coming five years there will be a great breakthrough. Geographical barriers will remain, the EEC governments will not be able to bring about rapid structural change of trade because they do not have sufficient control of "operators" especially during a recession, and finally because of the

HOW TO GET "THE COURIER"

Please write to us at the address below. Give your name, first names and exact address (number, street or postal box) and the organization you work at, in full. Nothing else. Please write legibly. The magazine is free.

general liberalization of the EEC's trading relations with non-Lomé countries. On the practical and organizational level ACP exporters need close but dispersed market contact, a steady level of product quality, a constant and sufficient delivery capacity and finally price competitiveness. As for the type of products to be exported, the study suggests the elimination of certain products which require highly qualified after-sales service, have low material and labour inputs but high capital outlay, and those which are too innovative and require complex know-how which is difficult to transfer. Finally both sides need to pursue policies which consciously remove the barriers to exports whether administrative, technical, structural or promotional.

Robert ARNAUT. — Africa Night and Day. — Presses de la Cité — Paris 1976 — 302 pages

Robert Arnaut has been broadcasting about Africa for many years. He is in constant contact with people from forest, savannah and desert. Until our times, Africa only had an oral tradition and Arnaut tape-records what books cannot say. He gave us souvenirs of his travels in the brush in the France-Inter "Oreille en Coin" broadcasts and plunged us into the climate of a complex, fascinating Africa. Listeners asked him to bring out some of his tales in book form and this is the result.

Here is a portrait gallery of exceptional people. Their wisdom and knowled-

ge has given them such greatness that they can "reach for the stars", as the Sahara story goes. They all, be they witch doctors, healers, prophets or wise men, be they Tuaregs, Pigmies or Frenchmen, have one thing in common. They are star gatherers and reap the celestial harvest.

ooo

David ANDERSON. — Economics of West Africa — Macmillan Education — £ 1.82

Students of economics who are preparing for the School Certificate and GCE papers set by the West African Examinations Council need a textbook like this, says the author, who teaches at the College of Arts, Science, and Technology, Zaria. It covers comprehensively all aspects of the present syllabus, but is also up-to-date in its statistical and descriptive information.

Changes in the syllabus from 1976 onwards have been taken into account. Enough economic theory has been included to deal with questions of this kind, and the book has been closely related to West African economies. Development plans which run up to the end of the present decade, such as the Nigerian one, have been included, and the effects of high oil prices on government revenue and trade figures for Nigeria are shown. Examiners, the author says, now tend to include, at the end of more and more questions, the words "in your own country".

The "Class Activities" at the end of each chapter are designed to take students' interest beyond the classroom, and make them increasingly aware that the subject is "live".

Questions after each chapter requiring an answer in essay form are designed to test the students' understanding and progress, and to prepare them for the examination, because the questions are either from past WAEC papers or are similar.

THE COURIER EUROPEAN COMMUNITY — AFRICA - CARIBBEAN - PACIFIC

Commission
of the European Communities

200, rue de la Loi
1049-BRUSSELS
(Belgium)

Tel. 735 0040 — 735 8040
Telex COMEURBRU 21877

PUBLISHER
Jean Durieux

EDITOR
Alain Lacroix

ASSISTANT EDITORS

Lucien Pagni
Barney Trench
Roger De Backer
Ian J. Piper

Secretariat: Colette Grelet (ext. 4784)
Circulation: Nico Becquart (ext. 6367)

