

ASSOCIATION

NEWS

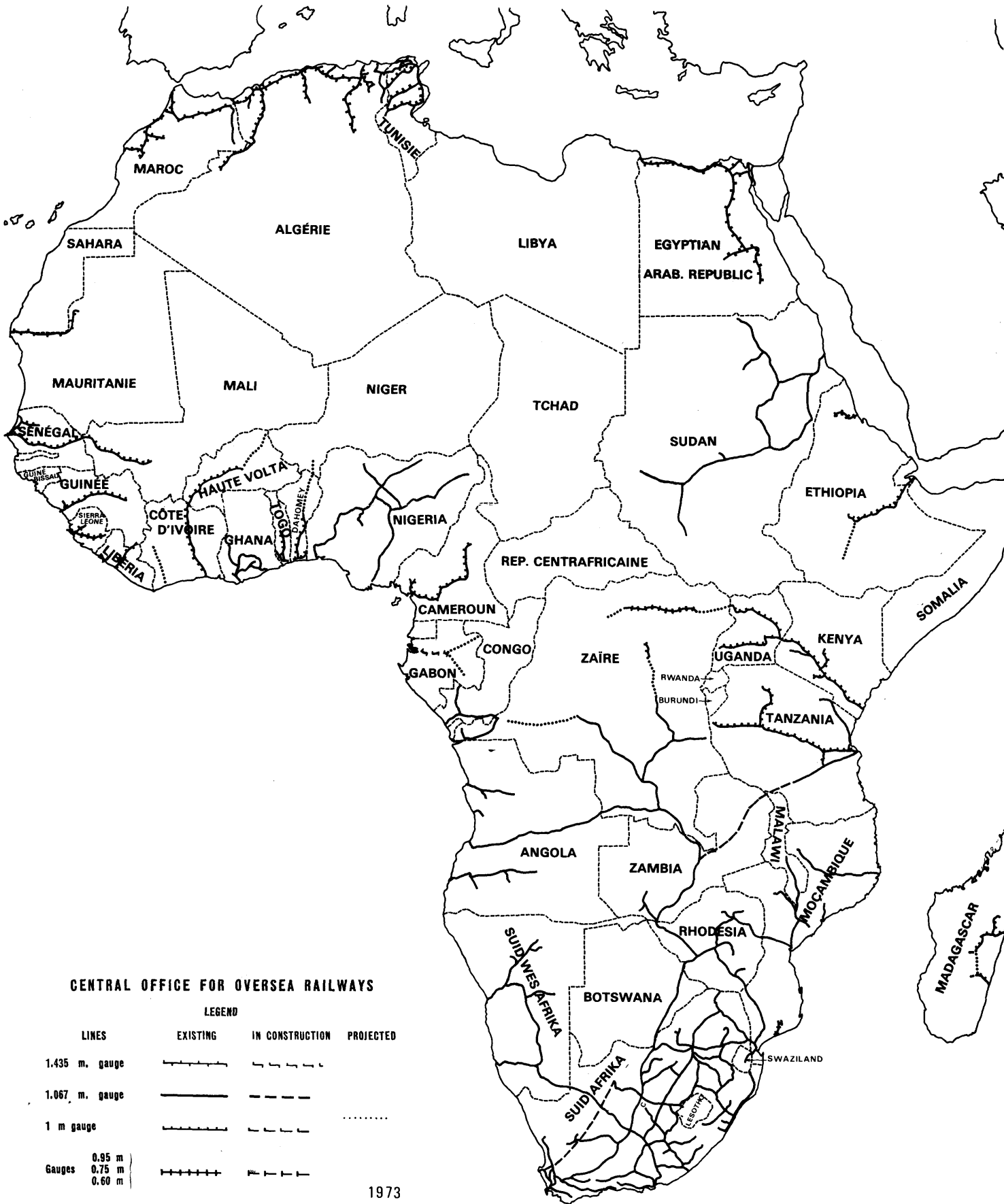
November – December 1974



number 28

THE RAILWAYS OF AFRICA

Railways in Africa and Madagascar



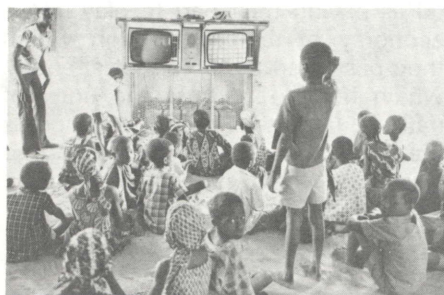
The Council of Ministers is not a council, it is a meeting of national ministers who represent their own nationalities... If you ask me whether I still maintain the policy of the Mansholt Plan, I will say no... If the crisis continues, the time will soon come when meat production must be reduced... The idea that we, the rich, should develop in order to help the poor, is an error. **Page 3.**



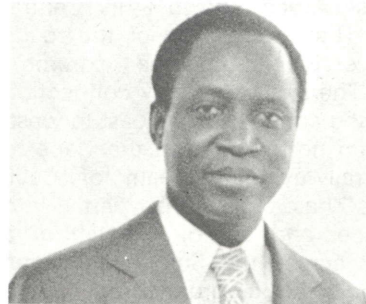
If the negotiations produce the expected results, we shall have made a great step forward in cooperation between Europe and the A.C.P., because we shall have reached an agreement much more complete than the existing ones—even the Yaoundé Convention. It will be an agreement taking full account of the requirements and capabilities of both sides, and we shall thus be opening the door to a new approach to the solution of problems arising in the Third World. **Page 20.**



This idea of an electronic revolution in education was bandied about from Mac Luhan to André Malraux. It made a sensation at first; but now, when it is only half-way through, it has given place to the combination of television and the computer. The audio-visual element has thus become the decisive factor. A new tool, the satellite, has come to hand through radio and television. Will it revolutionise teaching and education in Africa? **Page 71.**



In the new Convention, we should like to see provisions which will enable our trade with Europe to expand on less restrictive lines than in the past. They should reflect the political will, which came to the surface in Kingston, to work towards a situation in which the production of basic goods in developing countries will be able to emerge from its present depression, and attain a more respectable and more profitable status. **Page 16.**



It has been said of Black Africa that it suffers from "the weakness of being a continent". Here more than elsewhere, communications are a fundamental condition for economic and social development. It is said the road creates the traffic, and the same thing can be said about the railways. Adequate means of communication are a factor of national unity within a country, and they are a factor of proximity between different countries. **Page 30.**

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Interview with Mr. Van Elislande, Belgian minister for Foreign Affairs and Cooperation

There is no point in doing something if you have no way of making it known". The author of this sentiment is not generally known but he might have been a particularly astute politician or a leading journalist. A great deal has been and is being done to modernise and develop the railways in Africa south of the Sahara, but few people know about it and some even think railways are an outdated form of transport.

Only 15 or 20 years ago, people were taking a gloomy view of their future. Railways, it was argued, had been a good thing for 19th century Europe, but the fact that they were still being used was due merely to the fact that they were still there. For Africa, the argument ran, the development of road and air transport would make it possible to avoid the need for launching into heavy expenditure programmes to set up railway networks which were, in any case, archaic and ill-adapted for their purpose.

The railway density in Africa is very low. In this issue, an article by Pierre Protat, Director General of France's Central Office for Oversea Railways (O.F.E.R.O.M.) tells us how Africa's one kilometer of line for every 400 sq. km of territory compares with a kilometer for every 9 sq. km in Belgium, 15 sq. km in France and 16 sq. km in Italy. Africa has only 6% of the world's railway track, whereas North America has 40%, Europe 30%, Asia 12% and South America 9%. Africa's railways, dating from the colonial period, were originally built at minimum cost and consist of lines to open up the interior, based on coastal facilities and designed primarily to facilitate trade with the outside world. These lines do not constitute railway networks, and even the gauges used differed from case to case, so that it is difficult to think of

Hope is a risk that has to be taken

connecting them up with one another. Their track is old and the carrying capacity is small, which means that these lines cannot meet the needs of present day traffic. In round figures, the railways carry only 4% of the traffic in West Africa and 5% in Central Africa. The competition of the roads has everywhere become extremely active. There is no railway connection across the continent from east to west; and from north to south the Cape to Cairo railway, the dream of Cecil Rhodes, has come only partly into existence, and the old project of a railway across the Sahara has been replaced by a road project from Algiers to Gao.

Yet throughout Africa south of the Sahara, and in Madagascar, the old lines with only one exception are still in service and are being actively improved. Everywhere the working personnel has been africanised. Everywhere the rail traffic is increasing, and the importance of the railways is recognised as a factor in the great forestry development and in the increasing number of expanding mine operations. The railways are recognised as having their part to play in the economy of regions through which they pass, and as factors of strength, which help to buttress the unity of nations. Important new lines, such as the Trans-Cameroon, have come into existence; others, such as the Tanzam,

are in course of construction; and others, such as the Trans-Gabon, are coming off the drawing board. Yet another example is in Zaire, where the biggest of all the african projects looks to the creation of a national railway route across the whole country from Shaba to Matadi and Banana. Other projects are the extension of the Abidjan-Ouagadougou to Tambao, the 300 km northward extension of Dahomey-Niger and its connection with Nigerian Railways. Already some of the african lines have become international transport systems. This is true of the Tanzam, the line from Addis-Ababa to Djibouti, from Packwack on the Albert Nile to Mombasa, the Dakar-Niger and the Abidjan-Niger. In the same class are the railways providing the offtake for copper, the part played at present by Congo-Océan as the chief seaward access for Chad and the Central African Republic, and the part to be played in the future by the Trans-Cameroon in the same region. In Africa the railways have an assured future, and it is no exaggeration to say they are enjoying a renewal of their youth.

The economic future of the railway in Africa now seems assured. Besides the cold facts and figures, the railways will also develop to play a part in human contacts which other forms of transport seem unable to offer: this is self-evident in any african station, where the arrival of a train is always a busy and usually cheerful event. The railway is a link and a common contact, the station a meeting place to bring people and places out of isolation on the human as well as on the economic plan. The railway brings life and is for many a symbol of progress. In short, it is a hope, and to quote Georges Bernanos, "hope is a risk that has to be taken." ■

Dr Sicco MANSHOLT

Former President of the Commission of the European Communities

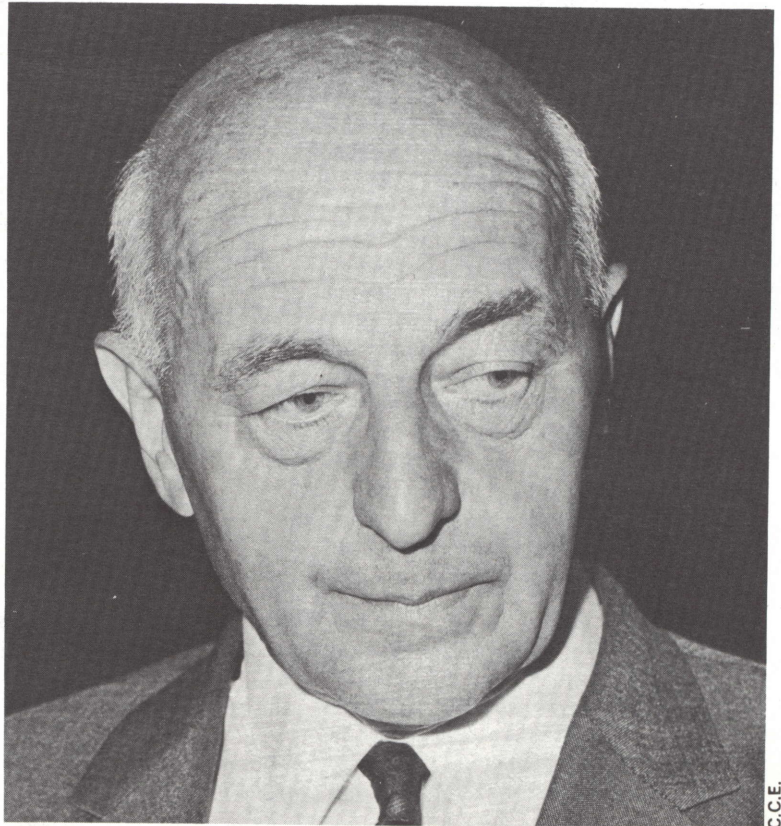
*"A crisis threatens humanity unless
the world reacts fast"*

Dr. Sicco Mansholt of the Netherlands was President of the Commission of the European Communities from 1972-73 and a Vice-president from 1958-72.

As an agriculturalist, his vast experience stretches from working in a Java tea plantation in the 30s to launching the Mansholt Plan and helping form the common European agricultural market. He was minister of agriculture and fisheries from 1945-58.

As a Europeanist, Dr. Mansholt took part in the negotiations to form the Benelux Union, forerunner of the Common Market, in 1946. Since his retirement from the C.E.C. presidency last year he has been indefatigable in scolding the Community for its lack of unity and working to unite European Socialist movements.

Barney Trench found Dr. Mansholt, now 66, spreading alarm and despondency with customary frankness from his country house in the rain-swept north of Holland. His pessimism about the world food situation, the economic future and E.E.C. disunity is expressed with such energy and spirit - notably in his latest



book, "La Crise" (The Crisis) - that its effect is often rather encouraging than discouraging.

► *Dr. Mansholt, from the perspective of your retirement—relative though it may be—from the E.E.C., do you see international affairs differently?*

Fundamentally no, for I think the problems are still the same. We have a Europe which still does not exist; and it is increasingly clear that it is a necessity, but this is something we have known for years and years. We have indeed

made some progress. We have set up a Common Market, we have created a Common Agriculture Policy and a common commercial policy, at any rate to a large degree. On the other hand, we still have not managed to solve the great economic, financial and monetary problems, or deal with the question of inflation. The solutions are always put off to another day; and even in dealing with the social problem, we have not

yet really got anywhere. Now for all this, it is becoming clearer and clearer that what we need is a political Europe. In my view—and it is a view I have held for years—it is the absence of progress towards a political Europe which stands in the way of the development of economic policy, social policy, environment policy and regional policy.

Organs of government for Europe do not at present exist. The Council of

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Ministers has in large measure shown itself to be impotent. Indeed it is not a council, but an assembly, a meeting of national ministers, representing their own nationalities, which does not succeed in producing a joint policy, except when it is forced to do so on a few points, as in the case of the agriculture policy.

This of course results from a divergence of fundamental views with those who do not want a political Europe, who do not desire a supra-national Europe, as is the case with the French. Since the days of General de Gaulle, nothing has changed. Pompidou followed in the steps of General de Gaulle without any imagination, simply bringing into execution the gaullist doctrine which consisted of weakening the Community organs, and not adding to their powers. So far, I have seen no declaration by Giscard d'Estaing to suggest that he really wants to follow any other policy. There is of course a majority which perhaps does not want another policy; but I recall that Giscard d'Estaing, when he was Minister of Finance, was a member of General de Gaulle's government, and I never heard him protest against the french policy in this period. This means that, in the period concerned, he did not resign. I regret, therefore, that I must say that I do not regard considerable progress as being possible.

I well remember the Summit Conference in Paris in 1972, when I was President of the Commission. Among the Benelux countries, there was an evident desire for progress towards a political Europe, and they put in a plea for direct parliamentary elections, which was refused outright by Pompidou who, incidentally, was supported by Willy Brandt. Even at this stage, it was clear enough that the german reaction was far from good. Since then, nothing has changed—quite the contrary. My feeling is that Helmut Schmidt, the new german Chancellor, takes a very negative attitude. From the first this has been his line regarding the Community organs. When he was Finance Minister, he never gave them any help in getting their work done; and often, in the same capacity, he staged a personal boycott of the Council. One way and another, I am not surprised that negative attitudes to Europe have now spread further.

Dr. Mansholt makes no claim to being a prophet and insists that his thinking is based on what is practicable. Nonetheless, the main currents of thought with which his name is identified—the "Mansholt Plan" and "Zero growth"—call for the long term consideration not only of the future of european agriculture and the consumer society, but also of the future of a world economy which could be on the brink of a serious crisis leading to a pitiless confrontation between the rich countries and the poor.

I think Helmut Schmidt has not yet discovered that the big problems can only be solved through a common policy—economic, social, budgetary and finance policy—in short, through integration. Germany cannot do it by herself. The movement towards bilateralism is a major step backwards in the construction of united Europe.

► *Would you remind us of the basic outline of the Mansholt Plan, and tell us what has become of it? Would you put forward the same plan now?*

On the main issues, of course, there has been no change. The need is still there for improving the farm structures and the social position of the farmers; and one could even say that the difficulties today are largely due to the fact that there has been no execution of the plan, which I proposed and which was finally adopted after a great struggle in April 1972. This was my last act as Commissioner responsible for agriculture, because it was soon after this that the Council of Ministers appointed me President of the Commission. The regulations have in fact been adopted. Credits are provided for young farmers, so that they can improve their farms; subsidies are provided, more especially in Italy, to make it possible for elderly farmers to give up their farms at the age of 55 and take their pensions early, provided their land is leased out to young farmers seeking to enlarge their undertaking. All this has been adopted in a complex set of regulations; but I must point out that, except perhaps in Germany, nothing much has been done about it. There is a struggle for

prices; and of course, higher prices are a necessity if costs are rising. You must not think, however, that there are great possibilities in raising the prices. This was noted quite recently in the Council of Ministers. In my view it would be much better to put more effort into carrying out this betterment of agriculture, perhaps by increasing the direct subsidies to small farmers who benefit from the increase in prices.

All around me I see that producers are in difficulties—whether they produce meat or pigmeat, eggs, poultry or other produce. Cereal prices are put up, but I see nothing which could improve the position of the small farmers. They are not producers of cereals, but have to buy them. I well understand that subsidies have to be given; as long ago as 1971, I proposed that direct subsidies should be given to small farmers, but the Council of Ministers would have none of it.

► *In an interview with the french magazine "Le Point" you warned of a food crisis before the end of the decade, and suggested, for instance, that we should eat cattle food instead of meat. Why do you think such a food crisis is coming, and why do you think it will be "unprecedented" when starvation has been a threat for most nations since time immemorial?*

I think all the statistics, all the publications of the F.A.O., studies by the United Nations and U.N.C.T.A.D., those of the World Bank, O.E.C.D. and even the E.E.C. itself(1) take the view that a food crisis is virtually inevitable. This is why this major UN Conference is to be held in November 1974. Ever since 1968, there has been a diminution in food supplies and in the capacity to feed the world's population. What is happening is that the population is growing rapidly and →

(1) In Association News No. 27 (Sept.-Oct., 1974) we published a dossier on the food crisis which included interviews with Dr. Boerma, Director of the F.A.O. and Mr. Francisco Aquino, Director of the World Food Programme, besides an article by Dr. Hans-Broder Krohn, Director General for Development and Cooperation in the E.E.C. Commission. Though there were various differences in their standpoints on a world food shortage, they all agreed that a food crisis might arise, but that it could be avoided by proposing a new policy for sharing the resources of the world and utilising its techniques.



C.C.E. — J. L. Debaize

"Famine is already with us now... yet there is enough vegetable protein which could be used to feed the world, only the rich countries buy it to produce meat"

agriculture, the production of food, cannot keep pace. It is very difficult to change this, because increasing agricultural production is a long-term matter. There is of course the "green revolution" which produced results here and there, but which is very difficult to apply on any great scale. I am, accordingly, extremely anxious. Already we are in the presence of famine, and in some parts of the world mortality is increasingly very fast. According to a report by the World Health Organisation, there are 100 million children between 1 and 5 years of age who are mentally deficient because of a shortage of proteins in their diet. Yet there are plenty of vegetable proteins which can be used for human food. The only thing is, the rich countries buy these proteins to produce meat, and this involves a loss of proteins of 7 to 1, or even 8 to 1, which means that we are opting for meat production and letting the rest die of hunger. This is very serious. It is my reason for thinking that if the crisis continues, the time is not far off when it will be necessary to reduce the production of meat and eggs,

cutting back the transformation of cereals and proteins into animal proteins, so that we can establish a better basis for feeding the population of the world.

▶ *The reduced production by the major grain-growing countries in 1973/74 seems largely due to a deliberate cut-back following a glut in previous years. Intensive grain-growing has now started again. Do you not feel this might also lead to a glut and further disturbances in the market, leading to a pattern of surplus and shortage?*

No. There is of course a great need of cereals and proteins for feeding the population, but it is not only production which counts. Famine certainly exists; but the decisive point is purchasing power. Even in the time of the big surpluses, 5, 8 or 10 years ago, there was only over-production of cereals because there were people who could not pay for them, or even transport them. In the future, if we do not take measures for better distribution of food, associated

with an increase in the purchasing power of the poorer countries, it is possible that a moment may still come when such surpluses will appear in the market, even though there is no real excess.

▶ *As a proponent of the theory of "Zero Growth", you called for a halt in the rich countries' scramble for material well-being. As the author of the Mansholt Plan, you called for a massive cut-back in European farming in the interests of rationalisation. To ask the predictable question: how can reducing the output of the biggest producers help the world food shortage?*

I have never proposed any massive reduction in the agricultural production of Europe. What I proposed was a reduction in the number of farmers, which is quite a different thing. There are too many small farmers with unduly small individual production. As a result, it is not possible for them to earn a fair income, and they live in social conditions which are the worst in the whole

European Community. The same thing is happening in the rest of the world. In general, we must produce more, because the world needs more. Here I must add, that I have made a mistake, for if you are going to ask me if I still maintain this policy, I am extremely hesitant and I answer no. We have got to be very prudent. This great stimulus we have given to meat production cannot be maintained in the light of present circumstances. It is not all that easy to look into the future; and with the example of the "butter mountain" before us, we have begun to seek short-term solutions, which are found to be valid on the longer-term.

▶ *What are likely to be the consequences of "Zero Growth" for the countries of the Third World, who need to trade on an increasing scale with the richer countries as a condition of their own development?*

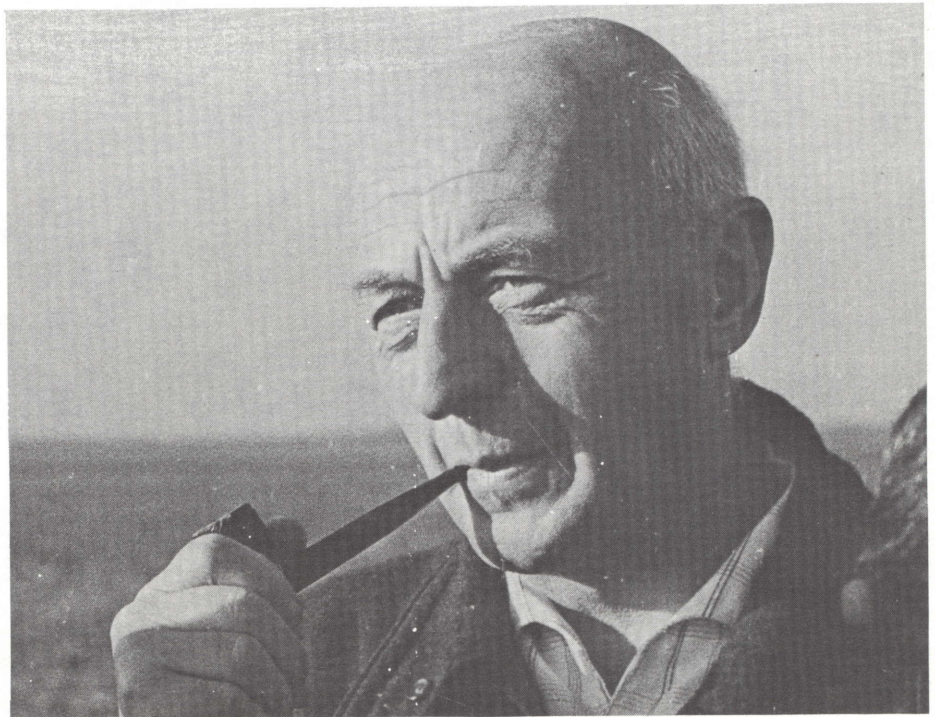
"Zero Growth" is what I proposed for the wealthy countries, and the wealthy people of the world, and naturally not for the poor countries, which cover the greater part of the earth's surface and have two-thirds of the world's population. These countries necessarily need a material growth in their production, which might be reflected in an income growth of at least 5% per annum. I believe it should be possible to devise an international programme for a further 1% annual increase in the incomes of the wealthy countries, and 5% in the poor countries. Even with a programme on these lines, which would result in a considerable fall in our material production growth, the nominal gap between the per capita incomes in rich and poor countries would still grow wider. I think such a programme would be realistic; but I nevertheless have the feeling that there will be no vote to support 5% and, if there is no change in the economic and social programmes of our own countries, our own growth will go beyond the 1% schedule, except and unless we are faced with some type of material crisis.

We must acknowledge that with our capitalistic system of production and trade, and our thrusting of this system

into the poorer countries, we are making great difficulties for them, and turning their social life upside down. It has been noted, that in countries such as India and Brazil, with the introduction of various highly rational industries, which do not employ many people and operate hyper-modern technologies ill-adapted to the needs of the poorer countries, only about 15% of the population get the real benefit, while the great masses remain in a deplorable state. It is fair to say that 60% of the population gets no benefit

your view, what is the best way in which european aid should be applied?

In my view, the European Development Fund should be so applied that the great mass of the population gets the benefit, and this is already being done for the infrastructure, irrigation and agricultural development. We must channel our aid in rationalising agriculture, so that it can, first and foremost, provide food for the native population. I am very hesitant to say I agree with the financing



"I can see around me here that the meat, pork, eggs and poultry producers have difficulties. Cereal prices are going up. But I can see nothing that could improve the small farmers' situation".

from technical progress. There is, therefore, a flaw in the slogan by which we wealthy nations must push ahead with our own development, because of the need for feeding the poorer nations.

▶ *The next European Development Fund emphasises the industrialisation of the Associated countries, though some observers suggest that an industrial revolution can only happen if it comes after an "agricultural revolution". In*

of agricultural export industries. I do not mean to say there should be no exports; but the real target is the population itself. We should also develop an industrial system, aimed principally at producing what the country needs for its infrastructure, its housing, its clothing and its food. In short, I should like to see the E.D.F. investments channelled increasingly to the benefit of the great mass of the population. ■

**Interview by
B. TRENCH**

WORLD POPULATION CONFERENCE AT BUCHAREST

Are there too many people in the world?

by Stanley JOHNSON (*)

The World Population Conference which met in Bucharest (Rumania) in August 1974 brought no precise answer to the two fundamental questions, namely: are there or are there not too many people on our planet? And if so, should their number be limited? Perhaps the problem is less a question of

number than of the distribution of room and resources and of the destruction of the environment. Stanley Johnson explains the main lines of the World Population Plan of Action drawn up at Bucharest.

There have been World Population conferences before—in Geneva in 1925, Rome in 1954 and Belgrade in 1965. But these were specialist gatherings, where demographers, sociologists, economists and development planners met and exchanged views in a private capacity.

Bucharest, 1974, by contrast, was an affair of governments. The so-called "international community" was involved. The World Population Conference 1974 must rate as a remarkable achievement if for no other reason than the fact that 136 countries decided to come to Bucharest to talk frankly and openly about a subject which for years governments have preferred to avoid: namely the explosive growth of the world's population, its causes and consequences.

The culmination of a process (1)

The Bucharest conference was the culmination of a process which has over the last decade brought the problem of population to the centre of the world stage. That process in the early days often depended on the dedication of individuals with or without institutional backing. Eminent demographers, like A. Sauvy, Frank Notestein, Ansley Coale and David Glass helped establish the facts of the population situation and bodies like

the UN and the World Bank were quick to grasp the implications for economic and social development. Philanthropists like John D. Rockefeller 3rd, and the Rockefeller and Ford Foundation (with men like David Bell and Oscar Harkavy) moved ahead with technical assistance programmes at a time when government aid was still not being committed on a massive scale.

After 1966, when the United Nations adopted a historic resolution urging aid for population and family planning through the United Nations agencies, the picture changed. The work of bodies like the International Planned Parenthood Federation, under the leadership of Julia Henderson and of the Population Council, under Bernard Berelson, remained crucially important, but the focus of the effort shifted. In 1967 a United Nations Fund for Population was set up and, in 1969, the resources of the fund were greatly expanded and it was given new dynamic leadership with the appointment as its Executive Director of Mr. Rafael Salas.

Today, the United Nations Population Fund is the largest multilateral source of aid in the population field—coordinating and supporting the efforts of the other UN agencies like W.H.O., UNESCO and F.A.O., as well as providing large-scale grants direct to governments.

If the Conference was the culmination of one process, it was also the beginning of another, namely an international commitment to look at the problems of population in all their complexity and to take appropriate action.

The agenda of the Conference included the following substantive items: Recent population trends and future prospects; relations between population change and economic and social development; relations between population, resources and environment; population and the family; and the World Population Plan of Action (W.P.P.A.).

The W.P.P.A. : a guideline more than a blueprint

The most important item on this agenda, without doubt, was the World Population Plan of Action. Now that it has been adopted by the Conference, the W.P.P.A. will take its place alongside other major UN documents, such as the Declaration on Human Rights, the International Development Strategy, the Declaration on the Human Environment and the Declaration and Programme of Action on the Establishment of a New International Economic Order. Of course, there will always be those who doubt the efficacy of these generalized statements of good intentions. The words "Plan" and "Action", it could be maintained, ought to imply a clearly defined movement towards clearly defined goals. It must be admitted that the final version the W.P.P.A. lacks this kind of clarity. It is more of a guideline than a blueprint.

The Plan of Action contains recommendations and statements of principles on population and socio-economic policies, promotion of the status of women,

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(*) Head of division "Prevention of pollution and nuisances" at the Commission of European Communities (Brussels).

(1) Editor's subtitles.



“Poverty, pollution and population lie at the heart of the chief social preoccupations of our time”. (Raphael M. Salas, of the United Nations Fund for activities relating to population).

the family, improvement of health services, urbanization, internal and international migration, research and education.

Among these are:

— Countries which consider their birth rates “detrimental to their national purposes” are invited to consider “setting quantitative goals and implementing policies that may lead to the attainment of such goals by 1985”.

— If the birth rate in developing countries as a whole is to be reduced from the present 38 per thousand to 30 per thousand by 1985, “substantial national efforts” supported by adequate international assistance would be required.

— The mortality level, particularly among children, in all regions should be reduced to the maximum extent—with the goal of a world average life expectation of 62 years by 1985 and 74 by 2000 (requiring by the end of the century an increase of 11 years for Latin America, 17 years for Asia and 28 years for Africa).

The Plan “recognizes the variety of national goals with regard to fertility and does not recommend any family-size norm”. At the same time it recommends that countries should:

— “encourage appropriate education concerning responsible parenthood and make available to persons who so desire advice and means of achieving it”;

— “respect and ensure, regardless of their over-all demographic goals, the right of persons to determine, in a free, informed and responsible manner, the number and spacing of their children”;

— “systematically and periodically ‘assess their population problems and needs’ so as to promote informed, rational and dynamic decision-making in matters of population and development”.

The calculation was made in the W.P.A. that, if governments which have population growth objectives—whether to increase, decrease or maintain present rates—were successful in achieving these objectives, population growth

in the less developed countries would decline from the present annual rate of 2.4 per cent to about 2.0 per cent by 1985, would remain largely unchanged at less than 0.9 per cent in the more developed countries, and would, therefore, decline in the world as a whole from 2.0 per cent to about 1.7 per cent. **Since a 1.7 per cent annual population growth rate, would still, on a world basis, result in a further doubling of population in 41 years,** it can be seen that at the moment there is a very long way to go indeed.

One of the problems here is the phenomenon of “demographic inertia”. Even if countries which have population policies and programmes implement them successfully, and even if other countries—perhaps as a result of the World Population Conference—adopt such policies and programmes, decline in fertility levels in these countries will not be fully reflected in declines in population growth rates until some decades later. For less developed countries, even if replacement levels of fertility—approximately 2 children per com-

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administrator and manager

pleted family—had been achieved in 1970 and maintained thereafter, their total population would still grow from a 1970 total of 2.5 billion to about 4.4 billion before it would stabilize during the second half of the twenty-first century. Under these circumstances, the population of the world as a whole would grow from 3.6 billion to 5.8 billion.

The challenge that is before governments now, as they contemplate the results of this Conference, is to make sure that the resources are available, both nationally and internationally, to put this Plan of Action into effect. And by resources is meant not just the commitment of money but also the commitment of will at every level—political, intellectual and technical.

Demography and developed countries

The papers that were before the Conference made it abundantly clear that

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(see page 15)



The Third World in fragments

by Pierre MOUSSA (*)

On May 28, 1974 Pierre Moussa gave a lecture under the title "The Third World in fragments" under the sponsorship of the French Chamber of Industry and Commerce in Brussels. This remarkable lecture took its theme from recent events, and is a

reflection on the state of the world today and the prospects for the Third World as a result of events and tendencies since the end of 1973, and continuing into 1974.

Many expressions have been coined to describe those countries which are characterised by under-industrialisation and lack of resources. They have been called "underdeveloped countries" and "developing countries"; and 20 years ago, I suggested "proletarian nations". The expression which has had most success is, beyond all doubt, "the Third World", which was I believe due to Alfred Sauvy. With the capitalist West and the communist East, the collection of southern countries is a third group, a third party, in other words the Third World.

To call them a "world", implies a certain unity; and this the Third World has never really possessed, though it has tended that way by efforts which have at times been spectacular. With modern industry, capital and technological progress concentrated predominantly in the temperate zone of the northern hemisphere, it became natural to think of the other countries as forming a southern group, which was comparatively homogeneous, at least in its present poverty and the sombre prospects one could foresee for their future. The countries concerned are those located south of

the northern temperate zone, in the sub-tropical, tropical and equatorial zones of the northern hemisphere and in a large part of the southern hemisphere.

This was the position during the fifties, and to a large extent also in the sixties. Two classes of fact, however, set changes in motion:

❶ In the middle sixties a number of countries (if I may use Rostow's aeronautical metaphor) succeeded in "getting off the ground". These included countries such as Mexico, Brazil and Hong Kong.

❷ The rise in prices of raw materials, beginning in 1970, but more especially since 1972, and still more with the oil price changes towards the end of 1973.

Between these two phenomena there is a considerable difference. The fact that part of the Third World was able to get off the ground was in large measure foreseen, expected and desired by the West. The only people taken by surprise were those who follow a line of thought, which is quite widespread and not always disinterested, to the effect that under-development is endemic and inevitable. In general it served to confirm forecasts and analyses which had been made in the West by a number of individuals and institutions, fulfilling the hopes they had entertained, crowning with success the economic development strategies they had helped to inspire and which had, in most cases, the support of a policy of financial and commercial aid.

The other phenomenon is entirely different. It consisted of the raw material boom and what may well be called the revolution near the end of 1973. The West, to say the least, had neither

desired it nor even regarded it as probable. In the splitting up of the Third World which is now happening, this second phenomenon is playing a part which is both more important and much more novel than the former. I shall accordingly devote the first part of this lecture to reflections about this revolution. In the second part I shall sketch a picture of the Third World in the fourth quarter of the 20th century. In conclusion I shall deduce various suggestions for a western policy towards the Third World.

Reflections on the revolution towards the end of 1973 (1)

It is now quite usual to compare the underdeveloped and poorer countries with the less favoured classes in society. The expression "proletarian nations" was aimed to suggest this comparison. Going back to the 19th century, it was by joint action—the trade union movement—that the poorer social classes succeeded in overcoming the iron law that wages could not rise above the minimum for survival. The proletarian nations are also aware of an iron law which holds them at the subsistence minimum by giving them in exchange for the raw materials they supply to industrial countries a reward which diminishes in terms of its purchasing power. The realities, of course, are not exactly in line with this, and the idea that the terms of trade are continually moving against the less industrial countries is an excessive simplification. What really matters, however, is the intensity of the feelings about it in the Third

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(1) Editor's sub-titles.

(*) Pierre Moussa is a former pupil of the Ecole Normale Supérieure and holds degrees in literature and the political sciences. He is an Inspecteur des Finances and, as a senior french civil servant, took part in the negotiations for the Treaty of Rome, more especially in drawing up the provisions for the Association in its first form. He is now a Director-General Manager of the Banque de Paris et des Pays-Bas, and Chairman of Cofimer (Compagnie financière pour l'outre-mer). Up to 1971, his lectures at the Institut d'Etudes Politiques in Paris, where he was Professor of developing countries' economics, were keenly followed by successive generations of students. Mr. Moussa has published four studies on developing countries: "The Economic chances of the Franco-African Community"; "The Proletarian Nations"; "The Economy of the Franc Area"; and "The United States and the Proletarian Nations".

World and the scope for it as a slogan. Little by little the proletarian nations have come to understand that, against this second iron law also, their only salvation must lie in joint action. Some years have passed since the algerian prophet, Franz Fanon, aspired to see a "raw materials strike".

This is the strike which hit us six months ago. It was concerned with oil, the most essential of all natural resources. It matters little that, as with many revolutionary upheavals, the prime movers were not extremists, but conservatively minded nations; or that this historic blow at the West was struck by countries which are friends of the West, whereas those most hostile to it did not interrupt their supplies. Nor does it greatly matter that the occasion for these events was a war set in motion by a State of moderate tendencies against the advice, and despite the opposition, of a progressive neighbour; or that the objective of this economic blow was not in itself—at any rate at the outset—mainly economic, but territorial and religious—not for the redistribution of the earth's material resources, but for Jerusalem. None of these paradoxes alter the fact that this crisis was the first major trial of economic strength between north and south, and that it was desired and organised by the south.

It has very considerable consequences in the distribution of the riches of the earth. If we take as a group the arab countries with a high oil production—Saudi Arabia, Kuwait, the Emirates and Libya—we find that their total oil income in 1969, only five years ago, was \$3.5 billion, or \$320 per head. **In 1974 this same revenue is \$50.5 billion, or \$4 000 per head.** In other words the total per capita income, from the present year onwards, amounts to 4 000 dollars and is thus of the same order as that of the European Economic Community. For some of the arab countries in question, the figure is materially higher, amounting in Kuwait to \$8 000 and in Abu Dhabi to over \$36 000.

This situation in contemporary history is something astonishingly new. The industrial revolution and its consequences had given the countries of european origin a definite advance on

the others. Between them and the rest of the world there was a big gap under five heads; for they had the biggest national product per head, they had the most abundant supplies of capital, the most advanced technology, the most complete and efficient range of industry and the greatest military power. Their position looked impregnable, for each of the five advantages strengthened the other four. Bigger incomes per head made for accumulations of capital; more capital made for investment and thus for more industry; and industry set up technological advances and thus made for bigger incomes; and there there could be no military power without industrial power, abundant capital and advanced technology. Long before the industrial age there had often been great inequalities between various countries, but there had not been identical gaps under all these five heads. The strongest nation was not necessarily the most advanced in technology, nor was it always the one where standards of living were highest. The interdependence of these five factors is probably one of the characteristics of the past century.

During the past quarter century, of course, the supremacy of the West has been challenged by Russia, but this is a challenge from a branch of its own tree. In any case the group of western nations has remained equal leader on the military side and uncontested leader in the four-fold field of income per head, accumulated capital, industrial power and advanced technology.

What has now happened makes a profound change in the position, at any rate under two of these four criteria. In income per head the richest of the western nations are being caught up by a group of oil countries. Moreover, the sudden increase in these incomes obviously makes for substantial accumulations of capital. Allowing for imports of goods and services, the income becoming available for investment can be estimated as running into tens of billion dollars annually, and the total for the next 12 years should undoubtedly reach \$300 billion. It is an illustration of the scale involved, that such a sum would enable these countries spreading out their purchases over the 12 years

concerned, to acquire a third of all the shares of all the companies quoted in the stockmarkets of New York, London, Paris and Frankfurt combined.

The West has thus been caught up by the U.S.S.R. on the military side, and by a number of arab countries in the income per head; and these arab countries are likely to become progressively a predominant source of capital exports. The West, therefore, only retains its advance in two of the five fields in which it has hitherto been the leader. These are, **technology and industry.**

What I have said so far is connected with oil, but most other raw materials had shown very marked rises, even before the events in the autumn of 1973. Between the middle of 1972 and the end of the summer of 1973, the Reuter index of raw material prices had almost doubled. The oil drama seemed to give a new impetus to the boom in other raw materials. In six months the price of phosphates rose 4-fold, and it is quite clear that this sudden rise was a direct result of the oil revolution. It was set in motion by Morocco, apparently after digesting the experience of the arab oil-producing countries.

In the winter of 1973-74 there was a temptation to believe we were at the beginning of a new era marked by considerably and lastingly higher raw material prices, in which a large part of the Third World would be in a position more or less comparable with that of some of the arab countries.

This is going too far. The dependence of the West on outside sources is at its highest for oil, and materially less for other raw materials.

There are several reasons for this. In the first place energy is a vital factor for the whole industrial economy; and many of the oil products coming from the Third World are much less essential. This is the case, more especially, for many of the vegetable products it exports. The principal foodstuffs for human use come in the main not from the Third World, but from the industrial countries themselves, especially from the United States.

Secondly, **there are few raw materials the control of which is so largely concentrated in the hands of**

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the Third World as is oil. Among mineral products, for example, the only ones that need be mentioned are bauxite, tin and phosphates.

Thirdly, oil has the benefit of a market in which, for quite a long time to come, no other source of energy can challenge it. The West, incidentally, built up this monopoly with its own hands, by keeping the prices of **petroleum products so low over a long period of years, that the end of the coal age was precipitated and the birth of the nuclear age was delayed.** For other raw materials, the substitution possibilities are much more favourable. Other factors to be borne in mind include the strategic stockpiles which in some cases, such as tin, play a decisive part in the market; and for some minerals there is the market threat of known ore deposits at present uneconomic but which might well be brought into production under the stimulus of higher prices. Moreover, oil is a product which when consumed disappears for good, whereas metals can be recycled, and we are still far from making full use of the recovery of waste and scrap as a source of supply, which could be pushed much further in case of necessity.

For all these reasons the principal other raw materials are in a much more vulnerable position than oil; and the recent boom in their prices, spectacular though it has been in some cases, may well be less durable. This of course depends on economic conditions in industrial countries. The rise in raw material prices since the beginning of the seventies (including, if we think back, the oil boom) is largely a by-product—subject to a slight time lag—of the rapid expansion enjoyed by the economies of the West during the sixties.

The proletarian nations which do not possess big oil reserves of their own can look forward to little potential enrichment from most of their other raw materials; but they are subject to real impoverishment as consumers of petroleum products. The Third World's imports of oil in 1970 cost it \$2.3 billion, and in 1974, allowing for some growth in the quantities involved, the corresponding figure will be around \$5 billion. By 1980, the cost will have risen to \$20-\$25 billion, so that it will be the

heavier by some \$20 billion than it was 10 years earlier. This means that **solely through their oil requirements, the countries of the Third World will have an additional charge on their economies equal to double the amount of the annual public aid they now receive.**

Oil is not the only heading under which the cost of imports has shown a considerable rise. Additions to it must include the imports of foodstuffs and fertilizers. It thus becomes clear that recent events, though they have made some proletarian nations extremely rich, have served only to accentuate the poverty of others.

The Third World 1975 - 2 000

Under the influence of these factors, what we have known as the Third World has split into **several segments** markedly different from one another. I would remind you that, if we count China as a Third World country, we are talking about 2.8 billion people, or almost three quarters of all humanity. It is worth trying to see what these different segments of the dismembered Third World will look like in the final quarter of the 20th century.

The first group consists of the opulent nations, comprising the **proletarian nations** in which, owing to their oil, the income per head has risen to a very high level. These are the Emirates of the Persian Gulf, Kuwait, Saudi Arabia, Libya, and including also Venezuela. This group has only a small population of about 25 m people, which is by no means a chance matter. It is not only because the income per head would obviously be smaller if there were more inhabitants. It is also because a nation with a small population has to import only small quantities of food and equipment, and can thus take a more serene attitude in contemplating an interruption in its exports of raw products. Insofar as such a country does not spend the income from its raw material but accumulates it in the form of capital, it is more apt than other countries to be annoyed at the idea of squandering reserves which are not inexhaustible in exchange for dollars which are con-

tinually diminishing in value. Thus the small population of the countries concerned served to facilitate the action they took in 1973. The population of this group of opulent nations is barely 1% of that of the Third World as a whole.

After the opulent nations come the **emergent nations**, consisting of those which are just overcoming their poverty and their state of under-development. They fall into two classes. The first are small countries which have scored isolated successes, which may have been due to comparative abundance of natural resources, to a geographical location particularly good for trading or for tourist development, to external aid on a specially generous scale by comparison with the small population, or to the quality of the population itself, or perhaps to several of these factors operating at once. Such cases include Hong Kong, Singapore, Lebanon, Gabon, Panama and a number of islands and island groups off Central America and Polynesia and Melanesia. All these countries taken together have a population of around 15 m. They are islands of comparative prosperity and their income per head is not far short of \$1 000, in some cases appreciably higher.

The other type of emergent nation is much more important. It consists of countries which we can see to be in a state of vigorous development and which enjoy a combination of favourable factors connected with their size, big reserves of raw materials known or presumed, a sufficient population for industrial development based on abundance of manpower and an adequate domestic consumers' market, coupled with a well-defined national consciousness and aspirations. **Iran** is a case in point. It is less opulent than some of its arab neighbours, but its oil revenues give it resources for speeding up its development. Today it is a country with a population of some 30 m, and is on the fringe of classification as under-developed. Within 10 or 12 years it will doubtless be a country of 45 or 50 m inhabitants with a per capita income of between \$1 500 and \$2 000, highly industrialised and, if it continues on its present lines, very powerfully armed. Another instance is **Brazil**, with its

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population of 100 million, its growth-rate on the Japanese scale, the enormous foreign investments which have been carried out in its territory, its huge reserves of virgin country, its wealth of natural resources, all of which combine to make it one of the great economic, and probably military, empires of tomorrow.

In the same category fall a number of countries of smaller size, but with characteristics in some degree similar. They include Colombia, Algeria, Iraq and Malaysia, and perhaps also some of the countries of Black Africa, such as the **Ivory Coast**. Another country ranking as emergent is Mexico, with its 60 million inhabitants. It has already got some way along the road of development, but is less abundant in its natural resources than Iran or Brazil.

In this connection, too, I think I should mention two countries in which the income per head is still very moderate, but which have assets which may enable them to qualify for this group. These are **Nigeria** with a population of 60 million and an oil production rising towards 100 m tons; and Indonesia with its population of 130 million, most of whom are well able to comply with the disciplines of industrial development and which controls a great variety of extremely promising natural resources. For the same reason, China must be considered in the same category if indeed its present strength, especially in the military field, still qualify for ranking it as a country of the Third World.

In this group of **emergent nations** I have included alike, the countries which have already been successful in getting off the ground, and others which have good chances of success in the early future. Between them they have a total population of 1 400 million (including over 800 million in China) or half the population of the Third World as formerly defined.

The third category consists of **nations which are still proletarian**. These are the countries where the income per head is low—under \$300 and in some cases \$100 or less—and where the expectation of rapid growth is poor in the present condition of their popula-

tion, their availabilities of raw materials and their national consciousness. These countries cover a **total population of some 1 400 million, so that they are in reality the other half of the former Third World**.

The condition of these 1 400 million people is far from uniform. Taken as a whole, they are all poor, but a large proportion of them are destitute. Any description of this destitute section must approach both from the geographical and from the social angle.

Geographically the poorest part of the Third World appears distinctly as a horizontal strip across the globe, covering the whole of the sahel zone in Africa, continuing through Ethiopia and beyond the Indian Ocean to cover practically the whole of the Indian sub-continent. The total population is about 900 million. These countries have very few natural resources; some of them have been sorely afflicted by far-reaching climatic changes; they are inhabited by people who seem to have little real interest in economic development; all of them have been dramatically affected by the 4-fold rise in the price of oil. Moreover, at any rate through a large part of the group, there is an uncontrolled growth in population; and in India the population growth has run well ahead of the economic growth.

Moreover, the proletarian nations are almost all marked by a serious inequality in the distribution of incomes between the different social classes. This is by far the most marked in the industrial countries where there is least equality; and in September 1973 it was denounced by Mr. McNamara in the following terms: "In the forty developing countries on which we have statistical data, the 20% of the population at the wealthier end receives 55% of the national income, while the 20% at the poorer end receive only 5%. The inequality is crying out loud".

The section of the Third World that most deserves our compassion consists of the least favoured social strata in the disinherited group of countries which runs from the Sahel to the Indian sub-continent. This is the hard core of destitution among the proletarian nations.

Suggestions for a western policy towards the Third World

The Third World, as we have seen, is no longer a unit. The policy of the West towards it, if it is to be effective, will need to be diversified.

In dealing with the opulent nations, it is the interest and the duty of western countries to match their own technology and industrial experience with the abundant capital becoming available through the big revenues derived from oil. Such a match may bring out industrial units in these countries themselves, especially capital-intensive industries in which manpower requirements are low. It may also lead to the execution of projects outside their own frontiers, either in other sub-industrial countries or in the western countries themselves. The technical assistance of the West may also take a purely financial form, channelling the available capital into the acquisition of wealth which existed beforehand, whether in the form of property or of a mobile character, in conditions which will be economically and politically acceptable to the countries where this wealth is located, and into investment on a very short term basis which, at any rate for the time being, seems to be the favourite outlet for those who own the capital. In the latter case it is up to the western Associates to see that these big floating balances of liquidity do not set up undue disorder in the foreign exchange markets, and that no undue depreciation in their value becomes a pretext for further acts of economic violence.

At the other end, with a view to the hard core of destitution among the proletarian nations, western policy should again be reconsidered. It is clear in the first instance that the countries concerned are scarcely in a position to carry a burden of debt, even if the lending be at philanthropic rates. In dealing with these countries it seems highly desirable that the technique of grants should be revived and should replace the practice of loans. A much larger part of this aid should be devoted to increasing the productivity of subsistence agriculture, providing it with water, credit, knowhow and quicker agrarian reforms. Up to

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the present too much priority—at any rate in relative terms—has been given to the industrial sector and to the public services, the growth in which has been mainly to the benefit of urban populations which, for the most part, were already the best off. Other priority objectives for external aid include setting up food reserves to make it easier to deal with climatic vicissitudes and technical and financial assistance in population planning.

Action on these lines is useful for development purposes, but development is not the main objective. It must be frankly admitted that for these peoples the problem of the moment is not of growth, but of survival; and **though part of the Third World is now in a position to think in terms of economic improvement, there is another part which has to think in terms of avoiding collapse.** The West can help by giving priority to the types of intervention I have mentioned. There is yet another way in which these people can be helped. They face the threat of famine and world food reserves are very short. If another bad year in these countries should coincide with a dry year in North America, there is a risk of tragic disaster. Would it not be possible for the well-fed peoples of the West to moderate, however slightly, their unbridled consumption of meat which, as we all know, is a most extravagant form of feeding and a waste of calories and proteins. Is it right, at a time when the world is short of fertilizers, that 45% of those produced in the United States should be used for maize, and therefore for the raising of fatstock? The risk of a shortage of energy products is very serious; and the key to this is in the hands of the Arab world. What, however, is such a danger by comparison with a shortage of cereals? And for this it is the West which holds the key, with all that this implies in terms of power and of responsibility.

Between the opulent nations and the hard core of destitution, there is the big group of emergent nations, to which must be added the comparatively developed section of nations which are still proletarian. It is in this section that the West can usefully continue making loans rather than grants; and it is here

that the objective is indeed growth rather than mere survival. It is a sector which can be progressively brought within the zone of prosperity which has hitherto consisted of the West itself and which, God willing, will so continue in the future. In all the countries where the political philosophy does not positively exclude the participation in production of privately owned capital, this may become a zone of expansion for that highly efficient instrument of economic progress, privately owned industry. The research of industrial groups for better cost conditions is leading them increasingly to consider setting up undertakings in these countries, both for the sake of the expanding local market and to take advantage of the comparatively low cost of local manpower. Passing beyond the old approach by way of "substitution industries" and "processing industries", we have for some years been witnessing a large scale transfer of industrial development into such areas as the Mediterranean and South East Asia. In this field, too, the West has got to revise its ideas, and it must no longer dream, except in special cases, of the possibility of industrial units located in emergent nations, but wholly or mainly owned by foreign groups. A large part—often the full majority—of the ownership must be in the hands of local nationals; and for the assurances formerly anchored in financial control, the quest must range rather in supply and delivery contracts and technical cooperation, and in the objective solidarity generated by the manufacture and the market being made organically complementary.

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The events I have recapitulated, with their culmination late in 1973 and early in 1974, are not limited in their effects to changing the forms of western aid to the Third World. Running deeper than this may be an unexpressed transformation in the western concept of the world's economy. It is this which I should like to mention by way of conclusion.

In the first place, men of authority and good faith have admitted that the former prices for raw materials, especially oil, were not fair prices. Though they were not able to give an exact definition of

fair prices, they had a confused feeling that the ability to accept such increases, and in most cases without any reduction of the big fiscal imposts laid on petroleum products by the western countries, implied in itself that the previous prices were illegitimate; and though they frowned on some of the excesses committed towards the end of 1973 by the oil-producing countries, they nevertheless felt some guilt for the situation which had existed previously.

There is more to it than this. Even from the purely economic standpoint, the West became aware that it had acted very unreasonably in its handling of a wasting asset by maintaining selling prices based on amazingly advantageous production costs without taking any account whatever of the cost of replacement, and thus organising a positive waste of the resources. Real progress may derive from this reflection if it brings home to the western nations the **principle of a concerted approach by consuming and producing countries** and the idea of a reasonable, if not fully rational, organisation of markets for the principal raw materials, even though the producing countries were to take the view that their own turn has come and, as they quite naturally might, refuse for the time being to take part in the concertation suggested. As Claude Cheysson has said: "It would be a dreadful thing if, on our sudden awakening to the magnitude of the raw materials problem, we should only be ready to discuss it with countries which have a stranglehold upon us".

Looking further into the question, the shortage of oil voluntarily inflicted on the West and the fear that this shortage might grow dramatically worse foreshadowed a longer-term prospect of scarcity in the available supplies of various raw materials. The result was a strong consciousness that natural resources are limited and precious, and that their consumption must be adjusted to the dictates of prudence. For more than a century the industrial current has given us to believe that human ingenuity and enterprise were all-important and that all the rest will follow as a matter of course. We have been acting as if natural resources were unquestionable and inexhaustible,

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were of secondary importance and could be squandered. Today we are again becoming conscious of the physio-ocratic conception of nature, the feeling that it is a positive and fundamental asset from which our wealth must flow, and the requirements of which we must respect and accommodate. For some years everything has been leading the West back to this fundamental conception of nature. Phenomena such as the hippy movement and the zero growth philosophy are imperfect but

significant expressions of the trend, and the ecological movement is on the same lines. The oil drama in 1973 all but took our thinkers at their word by bringing upon us the conditions of "zero growth" whether we liked it or not. The incredible runaway prices for various raw materials, and a world food situation dramatically under strain, gave us serious pause and produced a reaction against unrestrained industrialism and the civilisation of waste. Today mankind is better disposed to treat nature with

respect and this may well modify the relationship between the West and the under-industrialised world, for the latter is both a valuable reserve of natural resources and also a world rich in unspoiled spaces, unpolluted beauty and ecological virginity.

In the longer term these factors may be matters of even greater importance to the Third World—even in economic terms—than their reserves of raw materials. ■
P. MOUSSA

World population conference

(from page 9)

population problems are just as important for the so-called developed countries of Europe and North America as for the so-called developing countries of Asia, Africa and Latin America. Let me give two examples:

As the report of the Amsterdam Symposium on Population and Human Rights reminded us, the 1968 International Conference on Human Rights stressed that couples have a basic human right to decide freely and responsibly on the number and spacing of their children, and also a right to adequate education and information in this respect. Yet, in many developed countries (including the E.E.C. countries) that right is far from being respected.

Again, the report of the Stockholm Symposium made it clear that the three variables—Population, Resources and Environment—were closely interrelated. The developed countries have to recognize, as they have not yet recognized, that though in terms of crude population growth rates they may find themselves at the low end of the scale, there may be other qualitative problems no less important than a rapid rise in total numbers. The report of the Stockholm Symposium stressed the effect on resources and on the environment of demographic factors

taken in conjunction with levels of living, style of living, geographical distribution and technology itself.

These are just two examples—there are many more—of the need for developed countries such as those of the E.E.C. to take the recommendations of this Conference to heart in their own internal policy decisions. The Community is engaged at the moment in an exercise of long-term thinking—the so-called Europe + 30 project—in which population is one of the important factors to be considered. But this is only a beginning.

An ever-increasing assistance

On an international scale, as the Conference recognized, the need is for the developed countries to make ever-increasing assistance available so as to enable the goals of the World Population Plan of Action to be achieved.

Now that the whole aid policy of the Community is under review, we may reasonably assume that assistance for population activities—in the broad sense that these are defined in the Plan of Action—will necessarily emerge as one of the new Community priorities.

The Plan of Action stresses the need for this aid to be "in accordance with the national priorities of receiving countries" and that it be properly coordinated through the mechanism of the international agencies. Fortunately the appropriate conduit is already there. Over the last five or six years the UN Population Fund—U.N.F.P.A.—has over and over again demonstrated its capacity to coordinate a multitude of different types and sources of aid, while still respecting "the national priorities of receiving countries". What matters now, surely, is that all governments should on this occasion demonstrate their renewed confidence in this unique multilateral institution which they have themselves created. ■
S. JOHNSON

U.N.F.P.A. Contributions to Population Programmes by Geographic Area, 1973

	U.S. \$
Africa	5 936 075
Middle East	2 007 951
Mediterranean	2 240 386
Asia and Far East	15 604 838
Latin America & Caribbean	6 656 491
Europe	220 348
Interregional	12 088 668
Global	5 186 041
	49 940 798

From: 1973 Report on the United Nations Fund for Population Activities.

E. Frank FRANCIS, Ambassador of Jamaica:

"An agreement which provides a basis for a real and effective development in all our countries"

In the Europe-A.C.P. discussions the meeting of Ministers at Kingston was the point of no return. Now that these negotiations are coming into the final straight, two people in leading positions in the A.C.P. countries tell us of the importance of the

future Convention for the signatory countries. These are E. Frank Francis, Ambassador of Jamaica, whose account is given below; and Seydou Djim Sylla, Executive Secretary of the group of African, Caribbean and Pacific countries (see page 20).

► *After the A.C.P. (Africa, Caribbean, Pacific states) ministerial conference in Kingston on July 25-26, what are your current impressions of the latest phase of the negotiations?*

— In order to answer that question I think that I should first explain how I saw the purpose of the conference in Kingston. As you know the progress in the negotiations prior to Kingston had been rather slow. They had been slow for a number of reasons, but one of the major reasons, and I think that this had been accepted by all the negotiating partners, was that both sets of negotiators had largely reached the limit of their respective mandates and were still not close enough on a number of points in the negotiations to say that conclusions had been reached as agreed. Consequently what was needed was a meeting at political level for these points to be examined on a political basis, with a view to providing a new set of mandates for the negotiators on both sides. I would say that, from that point of view, the Kingston meeting was successful because it did provide us and the Community negotiators with the new mandates that we need, and at this moment in time the negotiators in Brussels are poised to carry forward the negotiations. I believe that with the decisions of Kingston behind us we should now be able to conclude the negotiations satisfactorily.

► *The Nine and the A.C.P. managed to reach agreement on a certain number of questions at the Kingston meeting. With regard to the trade exchange system, what will the future convention's position be regarding G.A.T.T.?*

— I assume, Mr. Pagni, by this question you mean the much talked about subject of reciprocity. I think that I can safely say that question is now behind us. As you know, I am sure, the ministers in Kingston agreed that there should be no reciprocal commitment on the part of the A.C.P. States within the context of these negotiations, and within the convention that will derive from them, and therefore as I say we can safely regard this question as settled and put out of the way.

► *Agreement has also been reached on the stabilisation of export receipts for A.C.P. products entering the E.E.C. market. In real terms, will A.C.P. farmers—who naturally provide more exports than manufacturers—benefit from a noticeable change in their situation?*

— On this question, the decision that was reached was an extremely important one. But I think it is important for us to recognise that it was a political decision and that a great deal of detailed work is left for us to do in Brussels. I believe that with the sort of political will that is reflected in the Kingston decisions it

will be possible for us to work out the sort of details which can make the arrangement that we all hope for a satisfactory and effective one. And against that background I think that the answer to your question is "yes": A.C.P. farmers could benefit from a significant change in their situation.

► *The access to the european market for sugar is of particular importance for A.C.P. producers, with the Commonwealth Sugar Agreement expiring on January 31, 1975. The ministers of the Nine postponed discussing the question at Kingston, although the Commission proposed that the Community should import 1.4 m. tons of sugar in any year, as from the signature of the new convention, at an average reference price of about 210 U.A. (£81) a ton. What is your reaction to this?*

— The first thing I would say is that it is true that sugar was not discussed in Kingston as a substantive matter. It was always acknowledged that there would not be detailed negotiations on sugar in Kingston. I think that the important thing on sugar in Kingston was that the Community Ministers acknowledged certain facts. They acknowledged for instance the fact of the 1.4 million tons having a history of access to Community markets and they acknowledged that a commitment existed for this trade to continue. It was agreed by the ministers

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in Kingston that the negotiators in Brussels would initiate discussions on the sugar question, and these discussions will start shortly. As you say, the Commission (this is just referring to your comment about various Commission proposals) has always acknowledged the commitment, the obligation to provide continuing access for the 1.4 million tons. I must say that I don't recollect at the moment the average price of 210 U.A. that you mention, but the Community has made various proposals over the last several months about the pricing arrangements which should be worked out for sugar. But all of this, as I say, is up for discussion in a series of talks which are due to start very soon.

► *The estimated production surplus of beet sugar in Europe is about a million tons per year. Despite this, the price of sugar on the world market is still fairly high because of the cost of refining. Shouldn't the A.C.P.'s sugar policy be—as with bauxite in Jamaica—reconsidered to allow for the entire manufacturing process to be organized on the spot?*

— I think in trying to answer this question I must first of all disagree with one of the premises in the question. You indicate that the price of sugar on the world market is high because of the cost of refining. Now the fact is that the refining costs are a relatively small element in the present very high price for sugar on the world markets. In order to try and answer this question, I hope that you will allow me to spread myself a little. I think the first thing to bear in mind is that the great

majority of sugar exported throughout the world is exported under one or another kind of special arrangement with contract prices and so on. The **Commonwealth Sugar Agreement** is perhaps the best known example, but there are other special arrangements under which for example a large number of countries have sold sugar to the United States; and there are also special arrangements covering the export of sugar to the Soviet Union. What we call the free world market for sugar is the trade in that part of export sugar which falls outside these special arrangements. In other words, the so-called world market, although it is used as a reference price by a large number of people and is in fact a very useful barometer, does not actually cover the largest part of the export trade in sugar. What has happened on the world market today is that there has emerged over the last couple of years at any rate, a shortage of sugar, and it is this shortage which has forced the prices in the world market to this tremendously high level. And of course the other factor which has aggravated the situation is the inflated prices for a number of other products,

during the last year or 18 months especially, which has increased production costs dramatically and has put pressure on producers to seek higher prices for sugar.

So I think it is against that background that I would like to answer your question whether A.C.P. policy should be reconsidered to allow the entire manufacturing process to be organised on the spot, that is in the producing countries. The answer to that is clearly yes, because a part of the development strategy for all countries is to try and add as much value to the raw material as possible in the producing country. But I would say that in the case of sugar this is one of the lower priorities at this particular time.

Now before I finish my answer to this question I wonder if you would also permit me to say a brief word about bauxite, since you introduced it as a comparison with the sugar situation.

There is, of course, an important difference between bauxite and sugar. In the case of sugar we have a raw material, namely raw sugar, which is



Heiderscheid

E. Frank Francis

“Regarding sugar, the important thing is that at Kingston the Community Ministers recognised certain facts”.

traded as between buyers and sellers and a price can therefore be established for it under contract arrangements or in the free market. In the case of bauxite this is not so: bauxite is a raw material which is only used by the people who are taking it several processes further to the metal stage. And it is only at the metal stage that you have what can be regarded as a real trade as between buyers and sellers. This is an important distinction to recognise. As I am sure you know, the Jamaican Government has recently taken certain initiatives on bauxite to try and deal with this peculiarity among others.

On the pricing question, we told the aluminium corporations who use our bauxite that the system by which we formerly derived revenue from these exports needed to be put on a more equitable and a more rational basis. Clearly it could not be regarded as equitable that the payments which Jamaica received for its bauxite should amount to some 2% of the price of the resulting metal. Equally clearly it could not be regarded as rational that the payments which Jamaica received from





Heiderscheid

E. Frank Francis interviewed by Lucien Pagni.

"Better information may lead to better understanding".

In a way also I suppose that the individual A.C.P. countries have a responsibility of their own to try and bring information about their countries to the attention of the public in Europe. But I am sure you will understand me when I say that an aspect of the spreading of information which I believe in a sense is even more important now is the need to inform the public of A.C.P. countries about each other, because in a way all of our countries tend to know more about the metropolitan countries—this is because of history and so on—than they tend to know about each other. I feel that one important aspect of these negotiations is the fact that this knowledge has started to grow, or perhaps I should say that the need for this knowledge has started to be recognised. Therefore my feeling is that one of the things I would like to see come from the totality of what we are going through in Brussels now is some means of ensuring that there is a greater flow of information among the A.C.P. countries.

its bauxite should in substantial part depend on the profits which multinational corporations make in their Jamaican operations. These were some of the elements in the situation which we sought to deal with. And so in essence, what we did on pricing was to work out and propose to the companies a formula which would give a price, at which we could sell bauxite, based on the price ruling for aluminium.

I mention this to try to emphasize the distinction between sugar and bauxite in the context of your question.

► *Non-tariff barriers do not only stem from public health laws or shipping regulations unfavourable to developing countries. I think there is also a lack of public support both in Europe and in the A.C.P. countries which is important. The Commission has recently set up an information service called "Feature Services" to provide the public in Europe with more information on its activities. The A.C.P. States have, it is true, The Association News, but there is still a lot to be done in this field. Shouldn't the new convention include arrangements for informing the general public*

so that cooperation between Europe and the A.C.P. could really lead to extensive and better knowledge of our economic, social and cultural problems?

— In this question, Mr. Pagni, you have really asked several questions. First of all I think I detect a desire to say that there is a lot of new information that needs to be brought to the attention of the public both in Europe and in the A.C.P. countries in order to improve understanding of each others situations and attitudes and so on. I agree with that proposition entirely. My own personal feeling is that if people don't know factually how other people live and how other people think and the sort of things that effect their attitudes, then they cannot understand the actions of people in other countries. Therefore this improvement in information can lead to an improvement in understanding.

Now having said that, let me go on to say two things: first of all, I agree that Europe needs to know more, that is the public in Europe needs to know more about other countries and in this case of course I am talking particularly about A.C.P. countries. And the activities you refer to, the new activities of the Commission, should help in this regard.

The second thing I would say, and this now comes more directly to the question you asked, is that I am not sure that this needs to be, or ought to be, written into the new convention that we are working towards. I believe that the convention, the existence of the convention will provide the sort of indication of a political will that we should know more about each other. But the means of doing it do not necessarily have to be written into the convention itself. I think that inevitably there will be greater cooperation between the A.C.P. countries when these negotiations are completed, on a much broader basis perhaps than they have necessarily been during the negotiations, and this cooperation will inevitably include a greater flow of information between us.

I don't know whether that answers your question as fully as you had hoped. What I am really trying to indicate is that I agree completely that this greater flow of information is necessary in all directions but it has to be a much more live sort of arrangement than can be written into the convention.

I think there is perhaps one other thing I could say, and that is that in the previous conventions—Yaoundé and

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Arusha for example—there have been institutional arrangements including a parliamentary conference, and the purpose of this, as I understand it, has been in part at any rate to provide for this contact between people, between the various partners of the convention and, inevitably the intention behind this must be to influence public opinion in the countries concerned. As I think you probably know, there has been some hesitation on the part of many A.C.P. countries about this parliamentary association, not because any of the partners disagree that there is a need to influence public opinion, but rather because the feeling is that the parliamentary form of institution does not necessarily provide the best means of influencing public opinion in the context in which we are discussing it.

There has been talk, for instance, about an assembly in which parliamentarians may be represented but in which other sectors of society in the various countries would be represented as well—trade unionists, business people, educationists and so on. So I think it is fair to say that in a sense the point that you raise in your question will come up for consideration when the institutional arrangements are being discussed. But that is true only in one sense. The sense in which I first started talking about this is something that we will probably have to deal with separately.

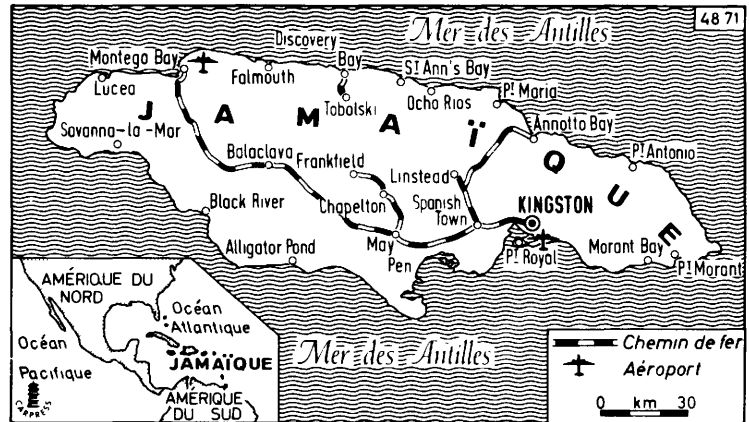
► *Three months before the Yaoundé Convention, the Arusha Agreement and the Commonwealth Sugar Agreement expire, and bearing in mind what was said at the ministers' meeting in Kingston, what ideally would you like to see in the convention for cooperation between Europe and the A.C.P. to which the present negotiations are leading?*

— What I would like to see in the convention are provisions which will enable our trade with Europe to flow in a more unrestricted manner than it has in the past. This involves satisfactory solution of a number of detailed problems such as rules of origin and other restrictive mechanisms. I would like to see provi-

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(see page 24)

JAMAICA



In our issue No. 20—July-August 1973—we published in the News an article by Mr. Frank Francis about economic and political life in Jamaica. Between 1969 and 1973 the GNP has risen from 916.0 m to 1 487.7 m Jamaican dollars (*). As in all the A.C.P. the economy of Jamaica is essentially agricultural; but the tempo of industrialisation is quickening with the development of new resources (bauxite) and the advantages arising through CARIFTA (the Free Trade Association embracing 11 countries in the same region). Jamaica is a big producer of sugar, a large part of which is sold in Great Britain under the Commonwealth Sugar Agreement, which comes to an end on January 31, 1975. As in most other A.C.P. countries, however, problems arise in Jamaica regarding the unemployment of young people.

Politically Jamaica is a parliamentary democracy under a system not unlike the English. The Prime Minister, Mr. Michael Manley, head of the Peoples' National Party (PNP) has been at the head of the country since March 2, 1972, following his party's victory in the election held on February 29.

An outstanding speech by Mr.

Manley was a feature of the conference in Kingston on July 25-26 this year, when the ministers of the Nine met those of the A.C.P. countries.

The Jamaican Constitution guarantees the rights of the opposition and—which is probably unique among modern constitutions—gives it the right of scrutiny and participation in appointments for certain high offices of State, such as the Public Prosecutor, the President of the Court of Appeal and others.

The present leader of the opposition is Mr. Hugh Shearer, head of the Jamaica Labour Party.

Jamaica has a flourishing press which enjoys a high degree of freedom. There are several morning and evening papers, each of which has a circulation of over 60 000 copies. There are several weeklies printed in runs of 75 000 copies and a Sunday paper (84 000 copies).

Jamaica has a population of about 2 million, and has been independent since August 6, 1962. It is a member of the Commonwealth, with Queen Elizabeth II represented by a Governor-General, and has played an active part in the negotiations with the European Community since their inception in the summer of 1973. ■

(*) \$ J1 = \$ US 1.10. Source: National Accounts Aggregate, 1969-73.

"We are reaching a Convention much more complete than the existing agreements"

Seydou Djim SYLLA^(*)

At the beginning of this year Seydou Sylla (see photo) was unanimously elected head of the Secretariat of the 44 A.C.P. countries negotiating with the Community after working for many years as Secretary General of the A.A.S.M. Coordinating Council in Brussels and co-Secretary of the Council of Association.

► *Your new appointment raises your charge from 18 to 35 countries. I presume this adds to your work and to your responsibilities. How does this important Secretariat operate, and what do you think of your job?*

— As you say, the african group for negotiation with the E.E.C. is made up of 35 countries and also includes Equatorial Guinea, which is not one of them but which has intimated to us that it wants to sign the agreement we are currently negotiating at the appropriate time. The Secretariat is an ad hoc organisation which has the job of assisting the organs of negotiation on the african side. It is not solely concerned with the interests of the african group, for it was extended from the outset to include the Caribbean and the Pacific groups. It is therefore working for all the 44 countries in negotiation with the E.E.C.

Our task, of course, is somewhat different from what I handled at the A.A.S.M. level during the eight previous years, but it is not unlike the work which fell on us during the Yaoundé negotiations. Our instructions come from the Committee of A.C.P. ambassadors and plenipotentiaries, or from the Committee

officers; and on this basis we prepare documents to introduce the discussion, both at expert and at ambassador level. In addition we provide the A.C.P. negotiatory organs with the documentation needed to appreciate the problems under discussion. We keep the minutes of the A.C.P. meetings and those of meetings of the plenary negotiating Committee, when our ambassadors or experts have discussions with counterparts in the E.E.C. Commission negotiating on behalf of the Community. It is also our task to prepare the reports of the Committee of A.C.P. ambassadors and plenipotentiaries for the attention of the A.C.P. Council of Ministers, which has held regular quarterly meetings since the negotiations began. In the early stages our work was extremely difficult, because we had no access in Brussels to the economic and statistical documentation on all the countries concerned which, in practice, cover three continents—Africa, the Caribbean and the Pacific. We are now much better equipped to provide the support needed by the organs of negotiation.

The Secretariat itself has a managing body consisting of myself as executive secretary, and Mr. Mamouya, who is of tanzanian origin, as assistant executive secretary. In addition there is a technical staff, which includes a lawyer and an accountant-administrator, who is in

C.C.E. — J.-L. Debaize

(*) Executive Secretary of the negotiating group for the E.E.C. discussions.

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charge of the material side of the Secretariat and of the negotiation; and there is an economic team which shares the work of preparing the technical studies on questions relating to customs, tariffs, quotas, problems of trade promotion, industrial cooperation, the joint agriculture policy and economic financial and technical cooperation. In addition, of course, we have a staff of secretaries and technicians who help us in carrying out our task.

► *You naturally played an active part in preparing the recent ministerial Conference at Kingston, Jamaica at which you yourself were present. Many observers think this Conference put a decisive political drive into the negotiations which have been in progress in Brussels for nearly a year. What do you think about this?*

— I take the same view. After nine months of negotiation, we considered it necessary to appeal to the ministers to settle a number of problems which had evident political implications. The E.E.C. Commission, which handles the negotiations on behalf of the Community, had a mandate which we considered somewhat too vague and lacking in precision; and the Commission, which is essentially a technical organ, was not able to provide solutions for a number of problems. These included the general trading system, the amount of the aid, the problem of export receipts and industrial cooperation. We accordingly made our own diagnosis of the problems which could be solved only at suitable political levels, and asked for an audience of Mr. Sauvagnargues, the French Foreign Minister and current Chairman of the E.E.C. Council of Ministers. He duly received the Committee of the A.C.P. Ministers in Paris and we had a broadly-based discussion of the position. The conclusion on both sides was practically identical, to the effect that the Kingston meeting must necessarily be held, but that the work of the ministers must be limited to the problems I have just mentioned, which called for the definition of political standpoints on both sides, so that the negotiators and the experts could go ahead in working out practical solutions for the resulting problems.

The Kingston meeting was a success because there was a political will to reach solutions on the range of questions discussed, within the time schedule which had been laid down for us, so that the world could really believe in the Community and in the willingness of the A.C.P. countries to cooperate. Today our position is considerably clarified and we are able to say that, in the days which lie ahead, we shall be able to make very rapid progress on the technical side, so that we can in fact meet the deadline. The important thing is that the position was clarified at the ministerial level, so that the A.C.P. are persuaded of the desire of the Europeans to reach an agreement with them and are aware of the special position currently prevailing in Europe through economic difficulties, of which both sides are fully conscious. This was a type of confrontation which made it possible to assess how far our partners would be able to go in matters which called for the adoption of a political attitude. In this effort of comprehension, too, the A.C.P. went some way to allow for the matters of concern to the Community, so that it was possible at Kingston to reach unanimous conclusions, which it will be for the negotiators to implement during the next couple of months.

► *The public has understood that joint approaches were determined regarding the trading system and industrial cooperation, and also for the setting up of a stabilisation system for basic products exported to the Community by the A.C.P. On the latter point there are still various details of application to be worked out, including the list of products which will have the benefit of the arrangements contemplated and the definition of their criteria of eligibility. Are you optimistic about this?*

— As I have told you, optimism is the order of the day. The ministers have signified their wish to reach a cooperation agreement between Europe and the A.C.P.; and we consider that the lines of approach worked out in full agreement between the E.E.C. ministers and the A.C.P. ministers will enable the technicians and the ambassadors to decide on practical solutions within a matter of days.

On the problem of stabilising the export receipts for products exported to the Community by the A.C.P., the lines of the directive are much more definite because a number of the criteria have already been laid down. The chief of these is the principle of automatic access to the proposed Exports Receipts Equalisation Fund for any country which finds itself in difficulties under this head, whether through a fall in world prices or through a production setback resulting from bad weather or other adverse conditions. I also think it has already been agreed that the factors to be taken into consideration for the granting of equalisation aid should differ from case to case so as to take account of the individual situation of the countries concerned. These differ considerably; some countries depend upon a single crop while others, though only a few, export a little of almost everything. There are some countries which have a seaboard and others landlocked in the interior; there are countries which have substantial reserves of oil and other minerals, while others figure on the list of the 25 most backward countries. For our part we do not think we shall be able to compile a first and final list; but, as was stated at Kingston, we intend to examine a number of problems in working groups, so as to determine the parameters we shall need to apply in facing situations depending on the specific problems of an individual country or relating to any individual product. We think a working party will very soon be set up to examine the special case of sugar, and another on the position of basic products for which the marketing problems are virtually identical, as is the case with coffee and cocoa; that the problem of oil-bearing materials will be the subject of separate examination; and that there will also be discussions centred on bananas and secondary tropical fruit. After these exchanges of views with the Commission, we believe we shall arrive at a list of products, the length of which will depend on the nature of the problems arising in the countries concerned. In my view, this work is practicable, and I believe the A.C.P. countries who consider they have problems under the revenue equalisation heading are already in possession of adequately prepared case material. At the secretariat level it will

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be our job to harmonise all these positions, so that the proposals made to the Commission can be definite and practical.

► *Is it accepted that the special aid granted will not be repayable?*

— There's the problem; this is one of the questions on which no definite decision was taken. At Kingston we thought we understood that the Community wanted the aid to be in principle repayable; but the words "in principle" suggest that repayment would not be called for in the case of the countries least advantageously placed, or for aid given to deal with specific situations of special difficulty. To put it frankly, the A.C.P. view is that aid of this kind, which is provided to help in facing difficulties arising from trade fluctuations, ought to be in the form of grants. Here, too, I think the discussions will be continued with a view to seeing how far it is possible for the A.C.P. objectives to be attained.

► *The A.C.P. memorandum on industrial cooperation aroused considerable interest on the European side, and it was agreed that this problem should be dealt with in a separate chapter in the forthcoming agreement. In this connection are you not concerned about the scanty powers available to the governments of liberally constituted European countries for directing the activities of private firms?*

— I expect you appreciate that the A.C.P. memorandum was based on the experiences we have had under the Yaoundé Convention. If you look at the Yaoundé document, you will see that there is provision for all the arrangements for encouraging industrial planning, feasibility studies and the setting up of industries in our countries. We soon saw, however, that this is a field in which we had to go beyond the public sector, because we are dealing with capitalist countries in a field in which the private sector predominates. This is why we put the accent on the idea of cooperation in industry. By our thinking this should be a method of setting

up contact between the promoters of industry in our own countries and the established industrialists of Europe. This should enable the latter to obtain a cognisance of our problems and thus a better understanding of what we have to offer them; and for ourselves, it would be an opportunity through our acquaintance with European industrialists to arrive at a better appreciation of our own chances of industrial development. The cooperation would of course be under the auspices of governments and the Commission; but for the reasons I have stated, we think it would be of more interest to private operators in the Community and in the A.C.P., and that through it we shall be able to work together in finding solutions to the problem of real industrialisation in our countries. Moreover, we gave priority of our own accord to proposals for local processing of our export products; and in my belief this is the field in which African and private European interests are most apt to dovetail.

It is no secret that private interests in Europe have already felt the turn of the wind. Three months ago I was invited to Rotterdam by the Club of Seven, which is the club formed by associations of businessmen working in Africa. I was asked to give a talk on this occasion, and I think I was very well understood, for I have just received another request from the club which is anxious to stage a meeting on September 26-27 with representatives of the A.C.P., for the express purpose of seeing in what way European private business can apply its own dynamic qualities to the objectives we laid down in our memorandum. You will agree we have grounds for optimism, for European business has taken the bait and seems extremely interested in our initiative. I think this is the way we shall be able to settle the problems about which there have been misunderstandings, arrive at systems of cooperation and mutual understanding and reach joint solutions to problems which have arisen in Europe for the private businessman, and in our countries for governments. The sponsorship for these two days of working contact is entirely that of these seven associations from seven individual Community countries; and I think that in the course of them, aided by the presence of some of our ambas-

sadors, we shall get a better understanding of the matters of most concern to governments and the Commission, and the desiderata for European businessmen who are specially interested in the industrialisation of our countries.

► *Maybe the "News" could give an account of such meetings and their results?*

— Yes, My friend Max Claus, coordinator in Brussels for the Seven Club, shares my opinion that after the meeting on September 26-27 we shall be able to give you more information. I see no reason why this meeting should not lead to full agreement. Our interests are closely connected as regards local processing on a progressive basis of the products we have so far been exporting unprocessed into the Community, using for the purpose the techniques, the technologies and the important markets to which these concerns have access.

► *Does this not imply some degree of transfer into Africa of productive capacity by the European industrialists?*

— Yes, but you know all this kind of thing is a matter of give and take. For us Africans, it is a good thing that some of the European industries should bring their investments into our territories; and they themselves in their European background are being stifled by problems of manpower, energy and other factors, perhaps even by problems of pollution. Africa is enormous and, for the time being, we have absolutely no experience of the pollution problems which are so acute in Europe. There is yet another factor which is even more important. This is the extension of the world market. This is a dynamic factor and we think we ought to have industries which could benefit from supplying the new requirements thus created. It is not merely a question of telling the Europeans to close up their factories and bring their investments to us; but of telling them that we can and should take part in meeting the ever increasing requirements of the world market.

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► *There were two problems which were not settled at Kingston—sugar and the amount of the future European Development Fund. Could you give a brief account of the attitudes to these?*

— From our point of view, I do not think the sugar problem is a real one. We have always said that the problem of export receipts—and this is what it amounts to—will have to be settled on an overall basis; and once the general principles have been laid down, we shall consider specific solutions for specific products, such as sugar. The factors to be taken into consideration in the case of sugar are clearly different from those affecting products such as coffee, cocoa, palm oil or groundnut oil. For this reason we do not think Kingston was the right place for seeking an immediate solution to the sugar problem. Moreover, we are well aware that the Europeans, in view of the commitments some of them have taken, are anxious to find a solution to this problem. Here again we are conscious that at the European level this is the problem of the moment. Some of the Europeans thought this should have been handled at Kingston, others consider the sugar problem would have to be settled in the wider context of the Community sugar policy. Consequently we think the moment for this has come only now that we have an outline of the plan for the equalisation of export receipts. As I said just now, for sugar and for other products, we shall be setting up specialist working parties to study the sugar problem and other problems; and in any case a solution will be found before the end of the negotiations, since it must be covered in the future convention.

On the question of the amount of aid, there were two schools of thought and two different conceptions. The first conception was that of the A.C.P., who considered that at Kingston the moment had come to determine the amount to be put into the financial aid envelope. The second conception was the European one, based on the Yaoundé experience, which holds that the aid problem is the last subject to be settled and that this should take place at 4 o'clock in the morning just before the agreement is due to be initialled. The discussion seems nevertheless to have been set in



C.C.E. — J. L. Debatze

“ Together we wanted to take the first step, by organising a stabilisation system for export receipts. This was a first step towards a more complete system, which will need to be on a world scale “.

motion, for we ourselves put on the table a note of the criteria we should like to see applied in fixing the amount of the aid. We went so far as to quantify the aid at a figure of around U.A. 8 000 m., resulting from the application of the criteria we had suggested. From the Community side, too, we were told the Community was busily studying an extremely bulky file about this; but the lobby information which came to us unofficially at Kingston produced a figure which is much more interesting than that put forward by the Commission, which was between U.A. 2 500 m. and 3 500 m. The figures we heard mentioned are closer to the higher figure. We believe that in this case, too, with the backing of a very strong political impulsion, we shall succeed at the next ministerial meeting in fixing a reasonable figure for the E.D.F.

► *Mr. Babacar Bâ, as spokesman for the A.C.P., announced that they had proposed Lomé, the capital of Togo, for the signature of the forthcoming agreement. It is contemplated that the preliminary initialling of the agreement take place within the next few months. Do you think this is realistic?*

— As I have told you, we are very keen to get the whole matter settled before the end of the year, and our ambassadors committee is to meet at the level of its officers on September 9 and in plenary session on September 16. Today the Secretariat put proposals before the officers, suggesting a reorganisation of our working methods, to take account of the conclusions reached at Kingston and the objective to have the agreement initialled before the end of this year. For this purpose it proposed a working timetable. We are reasonably optimistic and believe that the Community will have no motive for failing to follow the quicker tempo we are seeking to put into the negotiation and which, incidentally, will not be unlike the tempo we sought to secure for the negotiation in its earlier phases, but which the Commission was not able to follow. We believe that the Commission, strengthened now by the Kingston conclusions, will be in a position to keep pace, so that we shall certainly be able to reach an agreement before the end of this year. As I said at the beginning of our talk, the Community will have to accept the challenge if it wants to keep its

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The Prime minister Michael Manley at the Europe-ACP ministerial conference in Kingston.



promises and if it wants people to believe in it. I therefore do not think there is any reason why the agreement should not be reached as indicated by Mr. Babacar Bâ.

▶ *In conclusion, do you think it is right to say we are heading for a new pattern in relationships between industrial countries and developing countries?*

— I think that if the negotiations produce the expected results we shall have made a great step forward. This is because we shall have reached an agreement much more complete than the existing ones—even the Yaoundé Convention. It will be an agreement taking full account of the requirements and capabilities of both sides, and we shall thus be opening the door to a new approach to these solutions of problems arising in the Third World. There are two new problems—stabilisation and industrial cooperation—which, with their solution embodied in the cooperation with the A.C.P., will by themselves infuse a new vigour into the search for solutions undertaken during the past 20 years by the United Nations and its specialist agencies.

On the stabilisation question, we put forward proposals to the Community based on a full system of negotiated prices. The Community acknowledged the soundness of our request, but we ourselves agreed that it would not be able, as at present constituted, to deal single-handed with so difficult a problem as the deterioration of the terms of trade. Thus, they recognise that our requests

were legitimate, and we took into consideration the special position in which they were placed; and together we desired to take the first step by organising a stabilisation system for export receipts. This was a first step towards a more complete system which will need to be on a world basis. Clearly enough the partners in the Association will work together to fulfil as soon as possible the wishes and legitimate aspirations of developing countries, such as those which we ourselves put on the negotiating table. On the one side there will be 44 countries; in reality, when it comes to the signature, there will be 45, because we must not forget Equatorial Guinea. The number will be still larger when we bring in the Netherlands Antilles and the Comores, which are very shortly to become independent and will then de facto be added to the list. I should also mention our other african brothers who, like Guinea-Bissau, became independent during our negotiation, or who are likely to become independent before the agreement is signed, as is the case with Mozambique and Angola. Our hope is that in any case they will come and join us, as Mauritius did when she joined the original 19. When this has happened we shall be a much stronger world group and the better able to secure a full understanding of development problems, and call for solutions which take into account the interests of the developing countries as well as those of the countries already developed. ■

Interview by
A. LACROIX

E. Frank FRANCIS

(from page 19)

sions for real industrial cooperation, which I have not specifically talked about, but which we in the A.C.P. countries think is a new feature of the arrangements, which will enable a new element in the relationship between A.C.P. countries and Europe to be created. I would like to see more satisfactory arrangements for the use of the development aid funds which Europe provides, and naturally I would like to see a very substantial increase in the amount of these funds. And then I would like to see a set of arrangements under the general heading of export earnings which reflect the political will which seemed evident in Kingston and which can lead eventually to a situation where the production of primary commodities in developing countries emerges from its present depressing state and attains a status of both greater respectability and greater profitability.

Overall, I would like to see an agreement which provides a basis on which we can plan real and effective development in all our countries, an agreement which recognises a new and more enlightened relationship between a group of developed and developing countries and is capable of showing that economic cooperation between them can be mutually rewarding. ■

Interview by
L. PAGNI

Uwe Holtz, tells the "News"

"If development policy is to be anti-imperialistic it must support the struggle for suppressing colonial systems, race discrimination and foreign domination"

Uwe Holtz is a young socialist (born in 1944) and since 1972 has been a member of the Bundestag (the Lower House of the Federal German Parliament), where he is chairman of the parliamentary Committee for Economic Affairs and Cooperation. In the Council of Europe at Strasbourg, he sits as a deputy member of the Consultative Assembly. In March 1974 he took part in the raw materials conference in New York.

Mr. Holtz is a doctor of letters in the University of Kiel, where he holds an appointment as assistant in contemporary history. He is particularly interested in regional cooperation agreements, such as the Yaoundé Convention and the forthcoming agreement between the A.C.P. and the European Community. He thinks, however, that development aid should be increasingly handled on a world basis.

► *Mr. Holtz, would you briefly describe your general philosophy about a policy for economic development aid to the Third World, and the form you think it should take?*

— A general philosophy about developing countries cannot be summarised in a few sentences. But I can tell you about some of the fundamental aspects of our cooperation policy.

The objective of the second development decade, as I understand it, was to bring the world a fairer economic and social order, which would provide well-balanced encouragement for the social and economic progress of developing countries and a system of association on a world scale. Underdevelopment comes both from within and from without. In the widest sense I regard the struggle against it as a struggle against a world economic commercial and monetary system which sets up discrimination against the Third World. Second, it is getting public development aid which will be more effective, better, more extensive and a generator of freedom that I call the real development policy. I am well aware that in public development aid, this stricter policy plays only a secondary part in the attempt

to improve the unhappy lot of developing countries; and for this reason, the aid has to be effectively tailored to specific requirements.

It is my opinion that any development policy, if it is really anti-imperialistic, must do everything possible to support the struggle for getting rid of all colonial systems, racial discrimination and foreign domination, alike on the political, the financial and the material sides. I think we should avoid interference in the internal affairs of the developing countries, which means that we should consider how they look at things. The aid, however, has to be selective; and the biggest effort should be deployed for countries in which political and social forces are working towards progressive reforms, and the aid itself should be guided by the process of emancipation. Development policy should contribute to securing a more equitable distribution of wealth, and should not be channelled to the advantage of the privileged classes or reactionary governments.

In addition, public development aid should provide support for the less developed countries and also those which have been most severely affected by the energy crisis. The condition for economic and social progress is a

vigorous and effective struggle against the poverty of peoples, aimed to satisfy minimum human requirements. Developing countries which are poor or very poor, should not be helped with repayable loans, but with subsidies; and the sector priorities should give the main support to small farmers, and help in setting up a system of vocational training and education adapted to the local background. Foreign and other private investment should be guided and encouraged by the developing countries themselves in accordance with their own objectives and their own priorities.

For multi-national companies the main aim should not be to dismantle their international structure, but rather to control their activities and oblige them to serve the ends of economic and social progress, both in industrial countries and in developing countries. Direct contributions by way of public aid should be increased up to the target figure of 0.7%. In my view, public aid should be so designed as to encourage changes both in the social-economic field and in the technological. For example, it should encourage reforms in the distribution of incomes; and it should help towards the development of the right techniques.

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► *The former Federal Minister for Cooperation, Dr. Eppler, said in an interview with the "News" last May, that the German contribution to the economic progress of developing countries ought to be doubled by 1978, increasing to about DM 6 016 m.*

Has the commitment of Bonn to the battle against underdevelopment undergone any change as a result of the political "pragmatism" of the new Chancellor, Mr. Helmut Schmidt, the difficulties in deciding the scale of the effort to be made by the Nine, or the departure of Mr. Erhard Eppler from the government?

— I should emphasise at the outset that it is always difficult to lay down very precise plans. It always happens that there are structural changes to be accommodated. A current example is the disruption of international trading conditions through the joint action taken by the O.P.E.C. countries (Organisation of Petroleum Exporting Countries). When you ask whether German policy to developing countries has changed, my answer is categorically no. The fact that Mr. Schmidt has passed to the headship of the government has made no direct change in our policy towards developing countries. As I said just now, there are two approaches to development policy.

The principles underlying development aid are often contradictory. It is for us to decide for ourselves whether the need principle is compatible with the selectivity principle; and also, whether it accords with the principle under which we seek to further our own interests since, in my view, the bilateral interests of developing and developed countries are the same. Their ecological interests, the humanitarian, political and economic interests are all the same. On the other hand, the industrial countries are apt, for example, to be interested in raw materials; and I should say, that public development aid should not be limited solely to procuring us our raw material supplies. As politicians, therefore, our action in the development field should be undertaken with extreme prudence.

► *There is an increasing tendency for all aid policy to non-industrial countries to be put on a world basis. Personally I see in this a major advantage, since it will make opinion in countries with*

wasteful economies increasingly aware of the position elsewhere in the world, and this should certainly have an important effect on international relations during the eighties. I also see in it various disadvantages. The aid tends to be diluted, and the organs of decision are apt to be ineffective and have inadequate powers, since their world scope gives them a more political aspect than is contained in conventions such as Yaoundé or the Commonwealth Sugar Agreement which have already proved their worth. What do you feel about this?

— Personally, I do not like the reference to countries with a wasteful economy. I agree that among the developed countries there are some where the behaviour of certain social classes gives the impression of wastefulness. I must, however, insist that, at the level of the great mass of the population, there is an identity of interest between industrial and developing countries.

There can be two approaches to putting aid on a world scale. First, the European Community could progressively extend its aid to all developing countries; and I hope that all the countries of Europe will agree to a policy on these lines. Second, the aid could be made multilateral, provided the developing countries are able to participate in decisions concerning themselves, and have the right of vote in the international organisation; and provided these organisations are governed by the principles to which I referred at the beginning of this interview.

► *The second development decade will soon be coming to an end, and its results have not been particularly brilliant. Few countries have reached the target figure of 0.7% of the G.N.P. which U.N.O. had postulated as the public aid contribution. Do you not think that, when all is said and done, a world policy in such a matter commits everybody and therefore commits nobody; and there might be less expense and more certainty of results in contractual "regional" structures associated with international finance organisations, and in coordinated bilateral cooperation policies?*

— There are two sides to all these ideas. Your concept may be more sure of results—but what sort of results? Will

it not stabilise spheres of influence, prolong the system of imperialism and the neo-colonialism of industrial countries in the A.C.P. And will it be less expensive? The financial question is always a delicate one, and technical assistance undoubtedly costs more than financial aid. Perhaps it would be preferable to think in terms of other finance programmes. In Federal Germany our approach is to ask the potential beneficiary countries what they themselves want for their development purposes, and on this basis we provide finance. For the time being the main part of our intervention is connected with the different branches of agriculture. As between the criteria of certainty, cheapness and other standards of judgement, our choice has to be circumspect.

► *You spoke just now about the imperialistic character of the aid. As everybody understands, some of the development contributions have their ulterior motives. On the other hand, the regional organisations provide a margin of safety as a result of their neutrality and effectiveness, and this is recognised by the developing countries; whereas world organisations—even the United Nations Development Programme (U.N.D.P.)—do not offer the same advantages in safety and effectiveness.*

— There is no difficulty about assessing the effectiveness of world organisations. Take, for example, the World Bank, which is itself quite effective.

► *The advantages of a world system, nevertheless, are not altogether apparent.*

— Yes they are; there are many advantages in such an aid policy. An example can be seen in the world raw materials conference held in New York in April-May, 1974. It was noted in New York that there was likely to be a big change in the present balance of forces acting in favour of developing countries. For the first time the Arab oil-producing countries no longer stand out by themselves as an advance guard. In a world conception of development aid, the group of 77 (there are more of them now) will have more responsibility and will be able to take an effective part in the making of decisions in which they are concerned. At present, however, the

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destination of European aid is decided solely by the Brussels organisation, that is to say, by the industrial countries themselves. The risk of a division of the Third World is even greater. A world policy in my view is a chance for securing unity and agreement among developing countries. You spoke of the A.C.P. countries; but what is actually happening here is a division into groups of the underdeveloped countries. What are you going to do about the others—about India, Latin America and Indonesia?

It can easily be understood that some of the A.C.P. prefer to be organised with Europe, so that inside this organisation their position is one of privilege. Nevertheless, I think it is to the interest of the Third World to form a single bloc in their dealings with our industrial countries.

▶ *Yet a regional group is reasonably homogeneous in its interests, whereas a world group is necessarily quite the reverse. An international cooperation policy sponsored by U.N.O. or any other world institution, has very little chance of success. For example, in UNCTAD III, or even during the last raw materials crisis, the chance of an underdeveloped country making its voice heard depended on whether it was or was not an oil producer.*

— Yes I know that the production of raw materials and the types produced set up differences between developing countries. The fact remains, all the same, that the countries of the Third World, if they want to bridge the gap between themselves and the industrial countries, must necessarily have a common front in looking for the solutions. This is what Boumédiène attempted to do in New York. It is true, too, that UNCTAD has not produced the results expected of it. This is why it is just as well to be a realist and a pragmatist. I therefore approve the present attitude of the A.C.P. countries and shall make some remarks about it.

▶ *In a report to the Parliamentary Assembly of the Council of Europe, you suggested the extension of generalised non-reciprocal tariff preferences to all the products of developing countries. Nevertheless, in the present state of the international trading system under the*



Uwe Holtz

"I hope we shall succeed in working towards genuine cooperation with the countries of Africa, the Caribbean and the Pacific".

rules of G.A.T.T., the lobbies set up by the big multinational firms, and the lack of technical equipment in developing countries, will still be a factor against the latter in the terms of trade. Ought not the customs measures to be accompanied by international means of payment, such as special drawing rights (S.D.R.) which would enable them to obtain the machinery they need for their industrial equipment without having to run undue risks from the disequilibrium in their payments balances?

— S.D.R.s are certainly a possible solution for the deterioration in the terms of trade. Nevertheless, this solution brings in a serious risk—that of still more galloping inflation. I think we should consider other methods for dealing with the loss of income by the countries of the Third World. I am thinking in particular of paying remunerative prices for the commodities these countries produce. A day must come when fairer prices are offered for exported raw materials, so as to reduce the excessive gap between the prices of raw materials produced in developing countries and those of manufactured goods coming essentially from industrial countries. One can imagine solutions which would be very easy, but it is not so simple to discover them.

▶ *Your colleague Mr. Todenhöfer, in the C.D.U./C.S.U. party, thinks we ought to "stop the immigration of workers into Europe and go ahead with policies of development cooperation". This point of view is shared by most people in responsible positions with regard to development aid policy, including Claude Cheysson, member of*

the E.E.C. Commission and Jan Pronk, the Netherlands Minister for Cooperation. According to them, the halt to the immigration of foreign workers would have to be accompanied by the transfer to the developing countries of some of the industries associated with the raw materials. Erhard Eppler, in particular, said he was sorry there was not yet a structural Community policy about the transfer of these industrial sectors to the non-industrial countries. Have you any suggestions to offer?

— There is a serious conflict between commercial policy and development policy. Development policy can be liberal and progressive, as is perhaps the case in some of the countries of Central and Northern Europe; but despite this, the same countries practice an economic and commercial policy on traditional and conservative lines. This brings me back to what I said about this at the beginning of our talk. There is indeed a development policy in the restricted sense, and a development policy in the wider sense. The latter covers the whole system of world economic, commercial and monetary organisation which works to the disadvantage of the Third World. It is in this that we should seek to make structural changes. Erhard Eppler, for whom I have great admiration, is perfectly right in saying that there is not yet any structural policy in this field. In my view development policy should cover the general structural policy and the general distribution policy.

It would be possible to think in terms of an economic policy based on capitalist companies and the principle of the

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comparative advantages of geographical location. This means that, insofar as the developing countries had areas enjoying such advantages, they should be able to benefit from the free play of market forces and set up industries, such as textiles, leather and footwear. This also implies that in your countries your activities should extend from the simple production of raw materials to their local processing; and that firms in West Germany should set up a consortium to mine the copper in Zaïre and put it directly into process there. This would, for example, lead to your creating new jobs and it would also improve your balance of payments through the export of semi-finished products which would make it possible for you to buy further capital goods. This would be a better development aid than being in a hurry to hit the target aid figure of 0.7% of the G.N.P. If you were to set such a policy into operation, you could do without the \$500 m. credit from Federal Germany. In this field a number of first steps have already been taken. This is the case with Algeria, where a joint project for mining uranium is under consideration between the Federal Republic and the Algerian Republic. This is a field in which there are certainly possibilities.

The transfer of industries to the Third World is an approach to securing a more equitable international division of labour. For the time being this division of labour still runs on the traditional lines, by which I mean that it falls into the imperialist pattern. Federal Germany trades with the Third World, and 85% of the goods it buys are mineral and vegetable raw materials. We also export to the Third World and 95% of these exports consist of manufactured goods. This is trade in the old pattern, which has been dominant for the past 100 years. Something has got to change; and if there is to be a change, we need, in just the same way as the Third World needs, the support of the majority of the population, the industrial workers and the office workers in Germany and the other countries. We have got to explain the position to our wage-earners, and we must be able to rely on an understanding attitude, both from them and from their union organisations. We shall have to see to it that the plan does not result in a loss of jobs in our own

countries; for if it did, the population would refuse to cooperate in such a policy. This means that the only way of putting the proposed policy into execution, is for our action to be agreed and concerted with the unions and the wage-earners. It may of course set up disequilibria in some cases, and this may mean under-employment or unemployment in Federal Germany. The risk, however, is not great. If, for example, we were to send out to developing countries our firms in the textile, footwear, timber, leather and other industries, we should—according to the World Economic Institute at Kiel—be losing between 200 000 and 400 000 jobs between now and 1980. On the other hand, we have in the Federal Republic no less than 2.5 m. foreign wage-earners. It is quite clear that if measures on these lines were to be slowly and cautiously applied, we could perfectly well avoid there being any resulting unemployment. At the same time we can perfectly well transfer the jobs themselves into under-developed countries, which includes countries such as Turkey, Yugoslavia and the Arab countries. This would mean that we should not be forcing foreign workers to leave their own countries and cultural backgrounds, and the general environment in which they were brought up, for the sake of living in a Germanic world which, to them, is altogether foreign. There are thus quite a number of problems for which, in the longer term, we could seek solutions.

► *In general, Dr. Holtz, now that a new and enlarged cooperation agreement is a near prospect, how do you see the relations between Europe of the Nine and the A.C.P. countries (Africa, Caribbean, Pacific)?*

— I am certainly glad that the Nine countries of the European Community have come to an agreement on a number of principles which will benefit the Third World, such as that of non-reciprocity; that they have agreed to offer the countries concerned wider possibilities of cooperation and participation—which seems to me very necessary—and that they expect to open up their markets. I hope there will really be more generosity about the products known as “sensitive” and “semi-sensitive”. And I hope the quotas will be increased, so that a better

balance can be set up between the different countries. So far this has not been possible; for if a quota for import into France, for example, were to be used up it could not be taken over by, say, Italy. There are other improvements in the same field for which we can reasonably hope. In this I see a great possibility for cooperation between the industrial countries and those which are less industrialised; and it is a possibility, the effect of which will be to pass from the stage of confrontation to that of real cooperation.

Of course we must not lose sight of the fact that the European Community is becoming one of the most powerful economic units in the world, and that it will be strengthening its position. It could of course happen that this would lead to our gaining customers, markets and even exclusive markets, particularly in the African countries, the Caribbean and the Pacific; and that through bilateral treaties, we might build up a leading position giving us a kind of hegemony. On these lines Mr. Johann Galtung has declared that a European imperialism is now coming into existence; and that the nations of Europe are setting out to do collectively just what, in the past, they did individually. We have got to get rid of the dangers of economic, political, military and cultural imperialism; and in this connection the phrase “real association” is very much in its place. I hope we shall succeed in working in a spirit of genuine cooperation with the countries of Africa, the Caribbean and the Pacific.

► *Are you optimistic?*

— I am a moderate optimist, by which I mean that you must sometimes let your optimism be thrust upon you. Usually cooperation is only possible if there is first a confrontation. There must often be pressure before you can really begin to feel optimistic. In this case, if there had been no pressure, the industrial countries would not feel like making big concessions. This became quite clear in the preliminary talks with the 43 or 44 countries of Africa, the Caribbean and the Pacific. These countries, however, made a common cause and spoke with one voice; as a result, we were more willing to arrive at real cooperation.

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You said at the beginning that I am a young socialist. My starting point is that it is necessary to arrive at a more equitable world economic régime; but I am fully aware that it is not possible to revolutionise the world overnight. The process takes time. During the interview, too, I said development policy is primarily a general structural policy, aimed at more equity, more solidarity and more liberty. When I remember how difficult it was and remains to set up a well-balanced political structure in Federal Germany, and how difficult it is to operate a well-balanced political structure in the European Community—from Scotland to Southern Italy, in some regions of France and also in Federal Germany itself—I can conceive how difficult it is going to be to reach a structural policy on the world scale which will take long years to produce and will call for difficult decisions.

In addition, as everybody knows, a better balanced structural policy must mean that you have to take something from somebody to secure a more equitable distribution—in other words, you have to take it from somebody to give to somebody else. This implies, too, that in some degree we may have to forego an increase in our own prosperity. We cannot continue enriching ourselves as we have done hitherto; and this of course must raise opposition in some quarters. To do this we need to have an enlightened development policy. It can, in my opinion, be summarised by saying, that we must in the first instance have joint interests in ecological, humanitarian, economic and political matters; and secondly, our main interest consists in operating an active policy which will be a guarantee of peace by the natural elimination of social injustice. This policy for providing a guarantee of peace is based on three separate aspects. There must be a policy of peace between the nations of the West—for example, between Germany and France, the reconciliation between whom is an outstanding example; there must be a policy of peace with the eastern countries; and the third pillar is a policy of peace towards the Third World. This is my conception of an active policy to guarantee peace and secure progress on the world scale. ■

Interview by
Lucien PAGNI

FIRST EUROPEAN TOURIST EXHIBITION

In the Associated countries in Africa the tourist business made a hesitant beginning a few years ago, but it is now gathering pace. Governments have been faced with a growing demand, and have taken steps to increase the accommodation and capacity. This is particularly true in the Ivory Coast and Senegal, where the new facilities include holiday villages. In many of the Associated countries tourist development is given priority among the other economic activities, and investment codes provide various advantages for private investors.

The E.E.C. Commission appreciates the interest of the Associated countries in the development of the tourist trade in Africa and recognises that it raises a number of problems for the countries concerned. It has accordingly taken a number of measures for the **promotion in Europe of the tourist business in the A.A.S.M.**

Some of these are aimed at the professionals in the tourist trade and others have their target in the wider public. In the first instance these have included the discussion meetings on tourist facilities, organised with Commission support at Marseilles in 1970, at Yaoundé two years later and in Paris in May 1974. Secondly, they include A.A.S.M. participation in specialised tourist exhibitions, the organisation of tourist stands as part of the African Fortnight in Brussels in September 1973, and the showing of tourist films on the occasions when the Community programme brings the Associated countries to exhibit in international trade fairs.

In the present year the Brussels Holiday Tourism and Leisure Exhibition was the occasion for the first European **exhibition of african tourism**. The E.E.C. Associates taking part were Cameroon, the Ivory Coast, Gabon, Mali, Niger and Senegal.

Financial help was provided for their participation by the belgian government and from the European Development Fund, and technical assistance was given by the E.E.C. Commission. The A.A.S.M. stands covered an area of 1 500 sq. m. In addition to the exhibition of african arts and crafts, the exhibition included the showing of films and coloured slides of tourist interest; and visitors were thus able "to make a mini tour of Associated Africa" in which they got a taste of the african atmosphere, and to which they were welcomed with smiles by the african tourist authorities and hostesses who had come over specially from Africa to take part in the promotion programme.

The Associated countries have a big tourist potential in natural resources of various kinds, and can offer facilities to all sorts of visitors for all sorts of visits, broadly

classified as seaside (or lake-side) holidays, business visits and up-country trips. The seaside holidays, too, can be combined with tours covering several countries. For a real success in the tourist business, however, as was pointed out in an inaugural speech by M. Guy Cudell, then belgian Minister for Development and Cooperation, "it is not enough to present Africa as our holiday destination, but the whole package of tourism in Africa must be put forward attractively in a form to satisfy all comers".

The exhibition provided an opportunity for those in charge of the various stands to strengthen the contacts they had already made with various companies and travel agencies, with a view to organising tours or preparing the ground for organising them.

The Ivory Coast, which is seen to be very far advanced in the tourist field, was able to show prospectuses and photo-panels of its hotel chains and holiday villages which, in the past few years, have gone beyond the neighbourhood of the capital and are found in profusion around other resorts such as Assouindé or Assinie.

Mali offered visitors a taste of the cola nut, inviting them to admire its landscapes and the work of its artists. Niger, cooperating with a belgian firm, is offering a new facility to young visitors under 30, appealing to their sense of adventure in a "bush tour" along the valley of the river Niger. Cameroon displays the immense variety of the country and its forms of culture, from the forests in the south to the volcanic piles of the Kapsiki. Senegal, another country where tourist facilities are very advanced, has the benefit of not being unduly far from Europe and caters for every known type of visitor. Gabon promises "holidays with a difference", with hunting and fishing as the chief attractions.

There was an extremely good press reception for this first appearance of the african countries in the belgian holiday exhibition, and it was the subject of interesting articles.

On the other hand, though the tourist trade may be a source of wealth, it also raises a number of problems. These were discussed in the seminar for professionals, held in Brussels during the exhibition. The problems dealt with included:

- hotel investments in Africa;
- the desire for travel and information;
- problems of airline companies;
- relations between official bodies, airline companies, mass media and embassies;
- an experimental discovery tour offered by the belgian organisation "Caravanes de la Jeunesse". ■



AAA. Photo



Carouge

The railways of Africa

It has been said of Black Africa that it suffers from "the weakness of being a continent". Here more than elsewhere communications are a fundamental condition for economic and social development. It the road creates the traffic, the same can be said about the railways. Adequate means of communication are a factor of national unity within a country, and they are a factor of proximity between different countries, which is specially desirable when those countries have frontiers in common. In dimension, for example, the United States is a continent; and this continent, peopled from so many sources, might well have failed to become a nation had not the far-west and the eastern seaboard been linked long ago with the rest of the country by a well-developed system of communications, by land, by water and

air and by telecommunication.

As in the case of telecommunications ("News" No. 26—July/August 1974) the A.C.P. in general and Africa in particular are somewhat behindhand in their railway infrastructure. Most of the railway lines were built in the colonial period as simple extensions of the ocean highways, carrying them to the main centres which produce the raw materials for the industries of metropolitan countries. The position here is not unlike what it is in telecommunications, about which an enquiry in 1968 on the facilities in 42 countries showed that out of 832 telephone connections, between one african country and another—even those next door to one another—380 had still to be routed through Europe. Between the French-speaking and the English-speaking countries of Africa, railway connections do not at present

exist at all. The colonising powers were out to further their own interests, and the railways they built converged upon the seaports, from which the exports were shipped. The idea of building real national systems, or frequent cross-frontier connections did not enter into their calculations.

At present, nevertheless, progress is under way, especially since most of the A.C.P. countries are now masters of their own destinies. Those who govern the different countries are keenly aware of the vital importance of communications in their internal, regional and inter-african relationships. There is already a project in hand for a road across Africa, and work is in progress in setting up great railway systems to strengthen the links between the different countries. The new trans-Cameroon railway is now finished, cover-



AAA. Photo

Railway systems south of the Sahara

ACHIEVEMENTS AND PROSPECTS

by Pierre PROTAT (*)

ing 621 km between Yaoundé and its terminus at Ngaoundéré, with provision for a possible branch into the Central African Republic and a road extension to Chad. Another example is the Tanzam (Tanzania-Zambia railway), the longest in Africa, which is to be 1 860 km in length to link Dar-es-Salaam with Kapiri Mposhi. These are only two examples of the railway construction and improvement projects currently in progress in Africa. They are a clear indication of the interest attaching, especially in present economic conditions, to a form of transport which consumes only about a fifth of the energy needed for road transport for the same tonnage. Our Dossier in this issue is accordingly devoted to the railway systems of ACP countries; but in so wide a field it cannot claim to be exhaustive.

Africa covers a total area of 30.3 m. sq. km, to serve which it has 75 842 km of railway line. The area of the territory south of the Sahara is almost 24.6 m. sq. km, and the length of its railway lines is 62 816 km in all. These lines are to be found in 25 countries—Mauritania, Senegal, Mali, Guinea, Liberia, Ghana, the Ivory Coast, Upper Volta, Togo, Dahomey, Nigeria, Cameroon, Congo, Zaïre, Sudan, Ethiopia, Uganda, Kenya, Tanzania, Zambia, Angola, Mozambique, Swaziland, Botswana and the South African Republic. There are nine countries which have no railway—Niger, Chad, Rwanda, Burundi, the Central African Republic, Somalia, Gambia, Guinea-Bissau (1) and Equatorial Guinea. Last of all Sierra Leone is replacing its State-owned railway by a road.

This length of railway includes 1 466 km of mining railways, which are open for public service either not at all or only in specific conditions.

All the railway networks south of the Sahara are operated by State administrations, but their character is industrial and they are financially independent.

Apart from five of the mine railways built on the standard gauge of 1.435 m (4 ft 8.5 inches), practically all the

african systems south of the Sahara were built either on the normal metre gauge (39.37 in.) or the english version of 3 ft. 6 in. (1.067 m) (2).

The english 3 ft. 6 gauge predominates (46 786 km). There are 12 744 km of normal metre-gauge line and 2 138 km of narrow gauge lines between 60 and 95 cm (23.6 and 37.3 in.).

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(*) Director General of the (french) Office Central des Chemins de fer d'Outre-Mer (OFEROM), Paris.

(1) Bissau is no longer the capital of Guinea. Madina Do Boe is now the seat of the new republic's institutions.

(2) In fact the first two lines in the southern part of Africa were laid on the standard gauge of 4ft 8½ in. These were from Cape Town to Wellington (1857-60) and between Durban and the Point about the same date. The decision to change to the 3ft 6 gauge came in 1872, when it became necessary to extend the railway into the interior across difficult mountain territory.

With very few exceptions, the railways of inter-tropical Africa were built at the beginning of the present century, the undertaking dating back to the concluding third of the previous century, both in the northern and in the southern part of the continent (3). They were built in the dependant territories of european countries, which applied the same techniques and measurements as they had used in metropolitan territory. This explains, in particular, the difference in gauges. The choice of the english gauge for the systems in territories under the administration of Portugal and Belgium may seem surprising. It was due to the strong british influence in the african regions in question, exercised through dynamic personalities such as Cecil Rhodes and contractors such as Pauling.

The comparatively recent date of the african systems accounts for the use of the metric gauge. This was introduced in Europe in about 1960-70, when the need arose for connecting up with the principal system, but keeping the investment at a minimum. Contractors, such as Decauville foresaw a valuable market and designed highly suitable material at series-production prices. Throughout the african continent the need of the time was the quick provision of penetration routes for military and administrative purposes, as well as for economic development, and here again the investment had to be kept as low as possible. Moreover, the metre gauge had track-holding advantages, which reduced the necessary volume of earthshifting and the dimensions of the bridges, so that it was a first-class answer to the problem.

The colonial railway systems naturally followed the fortunes of the colonising powers and underwent the consequences of world events. Within three decades came the First World War, the slump in the thirties and the Second World War; and these, coupled with the after effects of decolonisation, led to the interruption of construction and improvements in progress, changes in long-term programmes and in some cases, a certain lack of interest in railway construction. This helps to explain the low railway density in Africa, where there is only one kilometre of line to every 400 sq. km of territory.

The figure of course is far below what is to be found in Europe, ranging from 1 km of track for every 9 sq. km in Belgium, for every 15 sq. km in France and 16 sq. km in Italy.

The structure, technical development and traffic of the railway systems in the maghreb countries and Egypt in the north of Africa, and the South African Republic in the south (4), are more akin to those of South America (especially Brazil and Argentina) than to those of the other african countries. In what follows, therefore, no further reference will be made to these systems, apart from the remark that their development was particularly rapid in the period 1960-73.

Satisfactory results

It was only in 1930 and the following years that the railway systems south of the Sahara, from Mauritania to Zambia, were brought into a state which, though by no means final, was at least sufficient for serving an active economic system. This

(3) The earliest projects date back to the law of April 8, 1857 for Algeria, and 1854 for the Cape line.

(4) In 1972 the systems in the Maghreb carried almost 26 m. passengers and 31.5 m. tons of goods. Those of South Africa carried over 565 m. passengers and 117.8 tons of goods.

was, for example, the time when the Senegal and Mali systems—the former Dakar-Niger line—reached their present stage, and the same applied in Guinea. The railway link between Abidjan and Ouagadougou was still unfinished, as was that between Brazzaville and the Atlantic. The east african and nigerian systems had practically reached their present capacity. Already the operating results were running ahead of the estimates upon which the construction and improvement decisions had been based. In Senegal, for example, the railway system in 1885, the year after its inauguration, carried 26 458 tons of goods traffic, which had risen to 67 492 tons by 1895 and amounted in 1909 to no less than 306 646 tons. In Nigeria, too, the railway had reached three quarters of its present development by 1927, when there were 2 570 track km (against 3 505 today) and it carried 2.8 m. passengers and 989 500 tons of goods.

The really important economic expansion was launched between 1950 and 1960, after which it went ahead very rapidly. Both in Zaire and in East Africa, however, there were difficulties following the accession to independence. These produced a fall-off in the railway traffic, and in Zaire there was between 1960 and 1963 a good deal of serious destruction on the Katanga and Great Lakes systems. Several important bridges were destroyed, including those over the Lualaba at Kamina and Kongolo. By 1965 the work of restoration was practically finished. The Katanga and Great Lakes systems, the concession for which was originally given to private companies reserving a shareholding for the State of the Congo, are to be taken over by the Zaire government in accordance with the terms of the concessions.

Annexed to this article are various figures showing the increase in the numbers of locomotives and rolling stock and the growth in traffic. At this point, too, it is worth recording one of the outstanding sets of growth figures among the african railways. This relates to the R.A.N. (the Abidjan-Niger Railway Administration):

	1957	1959	1961	1963	1965
Passengers, number (th.)	801	1 408	1 835	1 880	2 354
Passengers-km (th.)	93 900	195 218	324 211	373 824	506 642
Goods: tons (th.)	415	503	753	698	716
ton-km (th.)	139 223	190 644	338 362	329 958	331 753
	1967	1969	1971	1972	1973 (a)
Passengers, number (th.)	2 236	2 478	2 631	2 595	2 828
Passenger-km (th.)	478 823	522 477	700 923	777 539	883 110
Goods: tons (th.)	691	774	801	872	952
ton-km (th.)	325 233	393 939	448 413	480 068	553 543

(a) Estimate.

Up-to-date railways

Many people have a tendency to think of the african railways as much the same as the little european systems of purely local interest. This probably springs from the fact that the gauge is "narrow" and from memories of pictures in pre-war geography textbooks. There is in fact nothing backward in gauges of a

(see page 33)

**Renaat VAN ELSLANDE, Belgian Minister
for Foreign Affairs and Cooperation**

**"The forthcoming agreement
with the A.C.P.
will be marked by its new dimensions,
both geographical and in its scope"**

Renaat Van Elslande states the aims and methods of Belgium's cooperation policy in this exclusive interview, and stresses the innovations to be contained in the forthcoming agreement with the A.C.P.

Mr. Van Elslande comes from East Flanders. He is a Doctor of Law and holds a degree in political and social science. In 1949, at the age of 32, he was elected to the Belgian Chamber, where he is still a Deputy as a member of the Christian Democratic Party (Christelijke Volkspartij, or CVP). His election was the first step in a brilliant political career. He has been Minister-Under Secretary of State for Cultural Affairs (1960-61), Assistant Minister for National Education and Culture (1961-65), Minister for European Affairs and Minister for Netherlands Culture (1966-68) and Minister for the Interior (1972-73).



This is part of the series of interviews we have published this year with the ministers responsible for cooperation policy in the countries of the European Community, to which the ministers for Italy, Federal Germany, the Netherlands and France have already contributed.

► *In 1973, Belgium's public aid to developing countries amounted to over BF. 9 650 million(1), or 0.61 of the G.N.P. In 1972 the corresponding figure was 0.55%. Do you think the target of 0.70% will soon be reached?*

The figure of 0.70% was the target of a five year plan, on which we embarked in 1971. The year 1975 will be the final year of this plan.

The 1971 schedules put Belgium's public aid in 1975 at BF. 13 894 million, out of a total G.N.P. of BF. 1 932 000

million. The appropriation actually proposed by the government for 1975 is BF. 14 359 million, or BF. 500 million more than was laid down in the 5-year schedule. It exceeds the figure in the 1974 budget by BF. 2 591 million, or 22%; but even so, the 0.70% target will not have been reached. This is because we could not foresee the increase in the G.N.P. in 1973 and 1974. The result is that the Belgian contribution in 1975 will be 0.62% of the G.N.P., or 2 points above the provision in 1974.

In the coming year, therefore, we shall be able to provide aid on a bigger

scale. This is an indication of the government's wish to honour Belgium's undertaking in regard to increasing the public aid programmes on the same scale as the G.N.P.

► *Belgian aid goes primarily to Zaïre, and to Rwanda and Burundi. Is this practice to continue, or is the aid to be in some degree redistributed?*

It has always been envisaged that the increase in the resources made available should be partly applied bilaterally over a wider geographical area,

(1) 1 Belgian Franc = 0.02 U.A.

and partly by increased granting of multi-lateral aid.

One effect of the increase in our aid in 1975 will therefore be an extension of the list of recipient countries. Apart from the 17 countries at present concerned, the aid bill will extend to a short list of additional countries. In this connexion the government is thinking of Tanzania, Zambia and Surinam among others. As regards the choice of cooperation activities, the programme will not only be concerned, as it has been hitherto, with the priorities of the countries in question, but also with the possibility of improving living conditions at the lower end of the income scale.

In regard to Zaïre, more especially, this implies a certain reorientation. In 1974 we reduced our aid in those sectors in which our presence was no longer necessary. This was particularly true in the teaching sector, in which an adequate number of qualified instructors is available to replace our technicians. In 1974-75 the number was reduced by 100, without any prejudice to the structure of the country.

Regarding Rwanda and Burundi, I think we should remember that both are in the category of developing countries to which the United Nations assigns first priority.

► *Another feature of public aid is the high proportion of grants or donations, which account for 86% of the total. Do you think it likely this proportion will be maintained in future?*

I think it is clear the Belgian Government will continue on these lines, and urge their generalisation as a fundamental feature of development aid.

► *You recently told the Belgian Senate that "government aid should go beyond the project stage, and include the execution of programmes worked out in close cooperation with the countries concerned". How do things now stand in this respect?*

I presume, from your question, that you would like to see priority given to integrated development projects, in line with the priorities proposed by the countries concerned.

This fits in with my intentions, and the last meeting of the Mixed Committee on our bilateral aid to Tunisia, Rwanda, Burundi and Senegal is a confirmation of my policy. The projects concerned, and for which a special agreement was reached, cover both financial and material aid and sending experts and training counterpart personnel to carry on with the project.

► *Very recently, the negotiations for a new Association Agreement between the E.E.C. and the 44 A.C.P. countries included an important ministerial conference which was held at Kingston, Jamaica. Many observers have expressed the view that the conference gave the negotiations a decisive political impetus. What do you think about this?*

The Kingston conference certainly supplied the impetus needed for the effective and realistic continuation of the negotiations between the Community and the countries of Africa, the Caribbean and the Pacific.

It became possible to work out joint approaches to the main problems. By these I mean the trading system, the stabilisation of export receipts and industrial cooperation. There was also a first exchange of views on the amount of the financial aid.

The acceptance of the principles thus laid down will make it possible to continue the negotiations. Since the end of the summer holiday period they have indeed been resumed at a greater pace, so that the agreements can be finalised before the end of the year.

► *Apart from the trading system and industrial cooperation, the general public was impressed by the joint approach worked out to the question of introducing a system of stabilising revenue from basic products exported to the Community by the A.C.P. Some of the practical measures for implementing this have still to be worked out, more especially the list of products to be covered and the definition of the criteria of eligibility. Are you optimistic about this?*

On the question of introducing a system of stabilisation for A.C.P. export receipts, I think one can be reasonably

optimistic. The joint will to bring such machinery into effect was very clearly expressed, and work is being actively pushed forward to determine the implementation arrangements.

Specific proposals have been made on both sides regarding the list of products in respect of which this system shall be available. It should not be impossible to reach agreement within a reasonable time.

Moreover, the Community has already stated its intention of taking into account, inter alia:

- fluctuations in the total export receipts of the applicant country;
- world market price fluctuations affecting the exports to countries outside the Community;
- the level of development in the applicant country and any special difficulty arising through its geographical location.

► *The A.C.P. memorandum on industrial cooperation attracted much interest on the European side, and it was agreed that the problem should be covered by a separate chapter in the future agreement. In this connexion, when it comes to re-channelling the activity of private firms, have you any apprehensions regarding the scanty powers of governments in European countries in which the economy is in greater or less degree liberal?*

The industrial cooperation envisaged includes a number of methods and forms of action, calculated to promote industrial development in Associated countries, without necessarily requiring any re-channelling of the activity of private firms.

The lines of action include, for example:

- finance for industry and industrial infrastructure;
- special measures to help small and medium-scale undertakings;
- training schemes for staff workers and other personnel in the industries of the A.C.P.;
- information to the A.C.P. on technological questions;
- setting up organisations for industrial cooperation and for industrial information and promotion.

On the other hand, as far as some of the claims made by the A.C.P. regarding the adjustment of industrial structures in the Community are concerned, it is quite clear that a very close and realistic examination will have to be made of the possibilities which exist in this field to ascertain how far any effective action can be contemplated.

► *There are two problems not yet settled—sugar and the amount of the next European Development Fund. What compromises do you think are possible?*

The two problems you mention are likely to be the most difficult to settle during the final stage of the negotiation.

As regards sugar, the Commonwealth countries and Great Britain have, since the beginning of the fifties, been operating the Commonwealth Sugar Agreement, by which Great Britain imports a definite quantity of sugar each year (an average of 1 400 000 tons) at prices determined by agreement between the contracting parties.

The A.C.P. sugar producing countries now request that more substantial price and quantity guarantees be given them by the enlarged Community, as from January 1, 1975, when the Commonwealth Sugar Agreement comes to an end.

The Community undertaking is laid down in Protocol 22 of the Treaty of Adhesion. It is "to pay due regard to safeguarding the interests of all Associated countries the economy of which depends to a considerable extent on the export of basic products, especially sugar". It is in this context that the Community has made offers which would have the effect of setting up a system of sugar imports from the A.C.P. countries. These countries, however, consider the offers insufficient.

I should add that the Community is at present considering whether it would be desirable to amend the existing organisation of the Community sugar market. The problem is extremely complex, and you will understand that it is difficult to make any forecast of possible compromise solutions.

In the same way, the amount of the development fund for the next five years

is a matter for negotiations which are necessarily tricky, since the Community views and those of the A.C.P. are still some way apart. All I can say is, that we shall have to find a golden mean somewhere between 3 000 and 8 000 million units of account. In the present state of the negotiations, nobody can yet say where the compromise will lie.

► *The A.C.P. countries, according to their spokesman, Mr. Babacar Bâ, were proposing the future agreement should be signed at Lomé, the capital of Togo. Before this, it was thought possible the agreement would be initialled within the next few months. Do you think this is a real possibility?*

I can make no more than a brief reply. As I have said, there are still a number of quite complicated questions to be settled, and it is not at all certain that acceptable solutions can be found to all of them during the next few days. Yet I think the effort which has been made to put some life into the negotiations may make it possible for the agreement to be initialled before many months are out.

► *Lastly, Mr. Van Elslande, do you think it is fair to say we are on our way to "a new pattern of relationships between industrial countries and developing countries"?*

Indeed I think the Association we are about to set up can be regarded as a new pattern.

It will be marked by its new dimensions, both geographical and in its scope.

A large number of countries in Africa, the Caribbean and the Pacific will be entering into relationships with the enlarged Community, which comprises the major part of Western Europe. These relationships will go very considerably beyond trade, or even financial cooperation.

As we have already seen, the forthcoming Association will cover new and important fields, such as the stabilisation of export receipts and industrial and commercial cooperation.

I am convinced the Association will bring an active contribution to the economic development of the Associated

countries. It is not only a question of stronger links between these countries and the Community; but it is also certain the Association will make it much easier for the constituent developing countries to cooperate with one another. ■

**Interview by
Alain LACROIX**

E.E.C.-A.C.P. NEGOTIATIONS

The good results of the ministerial meeting at Kingston have given renewed vigour to the negotiations. Five mixed committees have been set up, dealing respectively with trade, financial and technical cooperation, industrial cooperation, stabilisation of export receipts and agricultural produce. The first meetings were held late in September.

The Council of the European Communities, at its meeting on October 15, 1974, approved an additional negotiating mandate to cover the institutions of the new Association and a letter to the European Investment Bank regarding the amount it may be able to contribute from its own resources towards the financial cooperation programme. The Commission representative gave the Council an account of the progress of the negotiation with the A.C.P., and the prospects for its continuation, with special reference to the timetable now laid down. The Council reiterated its determination to complete the negotiations in accordance with the timetable; and it was agreed that its President should contact the President of the A.C.P. group, with a view to a further ministerial conference to be held in Brussels during November.

The work of the Council was concentrated on various problems arising in regard to the stabilisation of A.C.P. export receipts, on which decisions of principle were reached at the ministerial Conference at Kingston.

..*

Negotiations relating to the global mediterranean approach

Following last month's agreement on the new negotiating directives to the Commission, in regard to the global mediterranean approach, a first round of negotiations has already been held with Malta and with Israel. Those with Morocco and Tunisia are to be resumed on, respectively, October 24-25 and October 29-30. Those with Algeria and Spain are to follow in November.

..*

Discussion on industrial cooperation

The Seven Club, comprising seven private organisations in European Community countries concerned in economic relationships with Africa, invited the african negotiators for the A.C.P. group to an exchange of views on October 10. The subject was the A.C.P. memorandum on cooperation with european industries, submitted by the negotiators to the ministerial Conference at Kingston, Jamaica, last July. A communiqué issued by A.I.A.T. (the International Association for Economic Development and Technical Aid) indicates that the ambassadors or *chargés d'affaires* of many african countries have recently discussed with the Seven Club the contribution private interests may make to this industrial cooperation.

Mr. Lippens, the Chairman of the belgian group "CEDIOM" (Centre pour l'Etude et le Développement des Investissements Outre-Mer) called attention to the offer made by this group to put the african knowledge and experience of its members at the disposal of the institutions of the future Association. On behalf of the European Commission, Mr. Krohn, Director General for Development and Cooperation, stressed the capital importance of the part private operators would have to play in any effective industrialisation. The spokesman for the A.C.P. negotiators, Ambassador Sanu of Nigeria, appealed to the european private firms to make a dynamic contribution to industrial progress in Africa, looking forward to a new economic order.

The Kingston memorandum was submitted to a detailed examination. Mr. Gates, in the name of the West Africa Committee, of which he is Chairman, and the East Africa and Mauritius Association (Great Britain), spoke of the importance of industrial cooperation in development programmes. Dr. Van Beurden of the Afrika Institut (Netherlands) introduced the complex subject of access to european technologies and their possible transfer to Africa. Mr. Hansen, Chairman of the Afrika Verein (Federal Germany) raised the difficult question of the transfer of industrial activities, arguing that these must be african extensions of existing activities rather than reductions of such activities in Europe. Mrs Sorge of the Institut italo-africano (Italy) emphasised the importance of the institutions of cooperation to be set up; Mr. Thierry Mieg, Chairman of the Association internationale pour le Développement Economique et l'Aide Technique (France), spoke of the "investment

(see page VIII)

CLAUDE CHEYSSON: "At Kingston we crossed the mountain pass. The road before us is no longer uphill."

Claude Cheysson, the member of the Commission responsible for cooperation and development, reviewed E.E.C. aid at a press conference in Brussels during September. Among the world powers providing aid to the Third World, he said, the European Community now ranks as the leader, both through the increase in the amount of the aid and through the original forms of cooperation it is seeking to promote.

The action in which the European Community is engaged covers the following fields:

1. Before the summer break, the cooperation ministers of the Nine laid down a "Community" development aid policy, an important aspect of which is the coordination of the bilateral aid programmes of the Nine.

2. Food aid was increased to a value of \$300 million.

3. The European Community has taken over 40% of the budget of the United Nations Agency for palestinian refugees.

4. The Council of Ministers of the Nine has agreed that the Community shall contribute \$500 million to a fund, to be set up by the UN, for the benefit of underdeveloped countries most affected by the rise in raw material prices, provided a total of at least \$2500 m is contributed by other industrial countries.

Since the press conference, the ministers have met as arranged to discuss the immediate appropriation of a first instalment of \$150 m. The meeting was held in Luxembourg on October 3; and the question raised at the outset was whether the commitments of the other donors (industrial and oil-producing countries) had been duly confirmed. The required guarantees were obtained and the Council accordingly decided to release this first instalment. A fifth part of the sum was to be put directly at the disposal of the UN emergency Fund, and the balance handled by direct action through the Community or the individual member countries. The Council also undertook to decide before next February on the appropriation of the rest of the \$500 m, the provision of which has already been agreed in principle.

5. In the conference at Kingston (Jamaica) during July, very substantial

political progress was made in Europe's Association policy. The European Community undertook to provide a new form of guarantee for the export receipts of the 43 countries in Africa, the Caribbean and the Pacific, which are candidates for the forthcoming agreement with the Common Market. In doing this, M. Cheysson said, the E.E.C. has made a gesture in favour of the "proletarian" nations, comparable with the one made by the Europeans in their own countries during the 19th century, when they recognised the right of the workers to unemployment benefit and sickness benefit.

M. Cheysson added that it should be possible for the negotiations with the 43 countries to be concluded before December 15, and that Guinea-Bissau and Mozambique might well be added to the list of signatories.

6. The conversations with the arab world, which began in Paris during the summer, are "politically inspired". Definite fields of cooperation should be found during the November discussions; but cooperation has already begun with a number of arab countries (Algeria, Morocco, Tunisia) as part of the E.E.C. mediterranean policy, and Syria, Lebanon, Jordan and Egypt have stated that they are interested in this policy. ■

Sea law conference at Caracas

No definite results yet;
but problems stated,
principles discussed
and major interests confronted

August 29, 1974

The third international Conference on Sea Law has finished its first session. Its second session will be held in Geneva in April and May 1975. The meeting in Caracas was attended by 3000 delegates, and 130 countries sent delegations.

It opened on June 20. Though it had been expected to bring far-reaching

changes in international sea law, it did not in practice unsettle anything. Ten weeks work was not enough for getting rid of the concepts inherited from the Geneva Convention of 1958, the sources of which, in fact, trace back to the Dutchman Hugo Grooid in the 16th century, who was one of the first to lay down the principle of free navigation on the high seas.

Concepts were, nevertheless, introduced and accepted, and their effect will be that sea law, after Caracas, will not be quite the same as the world has known in the past. The basic concepts are the **territorial waters** extending for 12 miles offshore; the **economic zone** of each seaboard country which extends for 200 miles; and the wealth contained in the high seas outside the economic zones, which is recognised as a **"common heritage of humanity"**.

The countries of the Third World, especially those in Africa, had adopted the idea of "patrimonial waters", first put forward during the sixties by the latin-american countries, and now amended to define an "exclusive economic zone". There were, however, differences of view, which made it impossible to put this concept into legal form.

Different theses were advanced by the United States, the Soviet Union, China, the Third World and Nine-nation Europe; and, depending on which was chosen, the patrimonial waters doctrine might have set up specific rights, preferential rights, exclusive and even sovereign rights, or the waters concerned might have become simply a 200-mile stretch of territorial waters, as claimed by Guinea, Peru and Ecuador.

The Conference limited its work to listing the different theses put forward and working out a number of versions of a Convention, from which the countries concerned will have to make their choice when they meet in Geneva in the spring of 1975. The United States, at the beginning of the Caracas discussions, introduced the idea of a "global negotiation", making it clear that the meaningful content of the economic zone concept would depend on the effective degree of navigational freedom allowed by all coastal countries, both in narrow waters and on the high seas.

As regards the "common human heritage", the problem arose of setting up an international system of operations and control. The idea was in fact accepted that there should be an "international authority responsible for the exploitation of the ocean bed"; but the ad hoc committee could do no more than list the various conceptions regarding the scope and powers of this organisation.

Under this head, the Third World would wish to see an authority with sovereign powers set up to undertake the operational exploitation of the ocean bed. The United States considered the powers of the authority should be limited to the licensing of operations by

WHAT ARE THE NODULES IN THE SEA?

The nodules now in the news are pellets consisting of many metals which are to be found in the ocean bed, where they have been accumulating continuously since the origins of the earth. Modern techniques make it possible to mine them to a depth of at least 200 metres.

Comparing expert estimates of quantities with the current (1960) rate of world consumption, the nodules suggest that the world now has reserves of:

- bauxite for 20 000 years (dry-land reserves for only 100 years)
- copper, 60 000 years (dry-land reserves for only 40 years)
- nickel, 150 000 years (dry-land reserves for only 100 years)
- cobalt, 200 000 years (dry-land reserves for only 40 years)
- manganese, 400 000 years (dry-land reserves for only 100 years)

These are only samples of the new dreamland. It seems that we shall also be able to find in the sea supplies of tin, coal, gold, iron, phosphates and many another mineral. High hopes are justified about this new wealth—provided, of course, it does not become a source of new rivalry and conflict.

private firms, who would be given exclusive rights in the areas assigned to them. The Soviet Union supports the idea of strict control over private companies by a sovereign authority, but rejects this system as applied to state-owned companies. The European Community view—and that of Japan is similar—would share with the national States the zones of exploration, in which companies should operate under the sponsorship of their governments.

Differences of opinion about the "economic zone" prevented any definition of the jurisdiction regarding anti-pollution measures or scientific research. In this case, too, the committee in charge of the question had to be content with listing the different points of view. There seems, however, to have been agreement on the general idea of a regional or "zonal" organisation to deal with pollution by ships, mining operations or from the land.

The Caracas Conference clarified many ideas, but decided nothing. Until a new maritime Convention has been drawn up, conflicts can still arise in relation to fisheries rights, navigation in straits or on the high seas and mining operations following upon unilateral State decisions. ■

European Development Fund

Following the assent given by the E.D.F. Committee at its 92nd meeting, the Commission has made eight further financing decisions for non-repayable aid from the 3rd E.D.F., amounting to a total of U.A. 10 656 million. They consist of four investment projects and a global credit for schemes of technical co-operation.

1. Republic of Senegal — Building of primary schools: F-CFA 417 m, or about U.A. 1.5 m.

This project relates to the building and equipment of 210 primary schools in seven parts of the country. It will make it possible to provide teaching for around 10 000 pupils in the best possible conditions.

2. Republic of the Ivory Coast — Construction and equipment of the Korhogo hospital centre: F-CFA 1 050 m, or about U.A. 3.781 m.

This is for the building and equipment of the Regional Hospital Centre at Korhogo in the northern part of the country. It will have 420 beds, and serve a population of 250 000, including the area around the town.

3. Republic of Togo — Extension of selected palm plantations in the Agou area: F-CFA 380 m, or about U.A. 1.368 m.

The project provides for laying out 700 hectares of industrial plantations of selected palm at Agou in the Plateaux region, to improve the profitability of existing oil extraction units, and includes adaptation of the maintenance techniques for a 3 000 ha plantation financed by the E.D.F. in 1969.

4. Republic of Burundi — Development of the Imbo—interim phase: F-BU 95 661 m, or about U.A. 1.007 m.

This is a continuation of a hydro-agricultural scheme in the Ruzizi valley financed from the 2nd E.D.F. This new phase is aimed to secure the best possible use of the improvements. It covers the amendment and extension of the various cultivation plans, and the enlargement of a coffee plantation by 135 ha.

5. All african countries, Madagascar, Mauritius and overseas countries and territories associated with the E.E.C.

Authorisation of global commitment of U.A. 3 million to finance technical co-operation schemes.

This sum is put at the disposal of the Principal Comptroller of the E.D.F. It is earmarked for financing, by the so-called accelerated procedure, the planning and execution of schemes for technical cooperation connected with investment, technical cooperation in general, and the planning and execution of programmes connected with marketing aids and sales promotion for A.A.S.M. products.

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Following the finance decisions now made, the total commitments from the 3rd E.D.F. amount to U.A. 775 693 000 covering 280 decisions since this Fund began operations on January 1 1971. ■

Fairs and Exhibitions

The A.A.S.M. at "IKOFA 74", Münich (10th International Food Industries Fair)

No less than 145 000 visitors—professional buyers and the general public—went to admire the big range of products shown in München at IKOFA 74. The exhibition was open for seven days and the products shown by the 1 600 exhibitors covered an area of 80 000 sq. m.

The many stands included those of the **Ivory Coast, Rwanda and Senegal**, where visitors found a special attraction in the facilities for tasting tropical fruits, coffee and shrimps, and that of **Madagascar**, which distributed samples of vanilla and tapioca, which were also much appreciated.

The A.A.S.M. participation was part of the Community programme. The results were considered extremely satisfactory, because of the many new trade contacts which were made, and a "test" show to a wide public.

In addition, a large number of meetings and discussion conferences were held during IKOFA, and among these special mention goes to the discussion organised by the Trade and Development Directorate of the E.E.C. Commission, in cooperation with the München and Upper Bavaria Chamber of Industry and Trade and the management of the Fair. The theme of this was "new openings for production and export of preserved fruit and fruit preparations in and from the African countries and Madagascar associated with the E.E.C."

The target of industrialisation in Associated countries is assuming a growing importance as the Association system develops. The Yaoundé II Convention (1.1.1971 to 31.1.1975) specifies that industrialisation in the A.A.S.M. is one of the priority objectives in the Association; and a wide range of instruments is provided for financial, technical and commercial cooperation.

The Commission, seeking to further industrial cooperation between the Community and the Associated countries, is endeavouring to promote this approach by organising discussions, meetings and round-table conferences to provide industrialists in Europe with information about the Associated countries, their investment programmes and projects, conditions of establishment in their territories and other relevant matters.

The discussion at IKOFA 74 was one of a series of meetings organised this year in the different E.E.C. countries on the occasion of A.A.S.M. participation, through the Community programme, in international trade fairs. ■

Eight Associated countries at the 50th International Trade Fair at Marseilles

Under the Community programme for A.A.S.M. participation in international trade fairs, the exhibitors at the 50th International Fair at Marseilles included Cameroon, Congo, the Ivory Coast, Upper Volta, Mauritania, the Central African Republic and Senegal.

The fair included an A.A.S.M. Day, under the chairmanship of H.E. Aladjí QUEDDO, Ambassador of Chad and Chairman in Office of the A.A.S.M. Coordination Committee. On this occasion, at the request of the Associated countries, the Commission organised an information meeting for a study of customs problems arising in connexion with A.A.S.M. participation in trade fairs, exhibitions and promotion campaigns.

The Commission was represented at this meeting by Mr. J.E. David. Those taking part included the delegation of the Associated countries and representatives of the customs service in several E.E.C. countries (Germany, Belgium, France, Great Britain, the Netherlands). The meeting discussed some of the difficulties encountered by Associated countries when they take part in trade exhibitions. These arise largely from misunderstandings of the special regulations in the E.E.C. countries, and from the fact that these differ from country to country. ■

Under the trade promotion programme

Refresher course in Brussels
for representatives of the

19 countries associated with the E.E.C.

Since 1968, the E.E.C. Associated countries in Africa and Madagascar have been playing an active part in international trade fairs. This is part of the promotion programme planned and carried out by the Directorate General for Development and Cooperation in the

In front of the Niger pavillion at the Marseilles Fair.



E.E.C. Commission, in close cooperation with the responsible bodies in A.A.S.M. countries.

For the Associated countries participation in the leading trade fairs and specialised exhibitions in Europe and Africa, if it is to be effective, calls for a very considerable effort, both in defining the commercial target and in staging the connected promotion campaigns.

For the most part, this work is in the hands of officials of government bodies in the A.A.S.M. countries dealing with fairs and exhibitions, and more especially of those in charge of the supervision and operation of stands at the international fairs.

The chosen delegates of the A.A.S.M. countries have acquired a basic knowledge and experience of the work from their attendance at European trade fairs during the last few years. Beyond this, however, it is indispensable that they acquire systematic knowledge of modern marketing techniques, and on the planning and execution of trade promotion programmes and the preparation of trade exhibits.

At the request of the A.A.S.M. countries, the Commission Directorate General for Development and Cooperation is, for the second time, organising a professional refresher course for stand management personnel.

This is taking place from October 20 until November 8 in one of the big Brussels hotels. The courses will be given by experts from the research and applied economics centre at the Belgian Foreign Trade Office, and by officers of the European Commission. The theoretical part of the course will be rounded off by surveys by specialists in importation, distribution, conditioning and advertising, and by visits to big shops in Brussels, to the Port of Antwerp and other places of professional interest.

The Associated countries are to be represented by 38 officials from West, Central and East Africa, Madagascar and Mauritius. They will undoubtedly derive considerable benefit from the course, as did their predecessors from the course held in 1971. ■

Black Art Festival 1974

A Black Art and Culture Festival was held in London from September 16 through October 5, 1974. It brought together a great number of Black artists in the United Kingdom; and they presented works of very different kinds, ranging from dramatic music and dancing to films and poetry recitals.

The London Festival took place at the Commonwealth Institute, and was organised by the United Kingdom Committee for the World Festival of Black and African Arts, which is to take place at Lagos (Nigeria) in October-November 1975. Mr. Earl Cameron, Chairman of the U.K. Black and African Festival Committee, stated that the festival in London should make it possible to choose a team of 100 or more artists who will represent the United Kingdom at Lagos. The British participation at this important artistic event will certainly be highly significant, because of the rapid and considerable development in recent years of art, music and literature among the Black community in Great Britain.

* *

In our next number we shall be dealing further with the details of the London Festival, and the preparations for the very important world festival at Lagos in 1975. ■

European Parliament

In a first exchange of views on the Community budget for 1975, the development and cooperation Standing Committee marked its strong disapproval of the action taken by the Council in reducing the draft budget put forward by the E.E.C. Commission. The parliamentarians considered that famine now threatens a quarter of the world, which is suffering dramatic effects from the rise in world prices. They accordingly deemed it inopportune and unreasonable to block the second instalment of the Cheysson Plan, and reduce the food aid provided by the Community. They propose, therefore, submitting to the budget Committee of the European Parliament a formal statement calling for the reintroduction into the budget of the figures proposed by the Commission, consisting of U.A. 210 m for the Cheysson Plan and a further U.A. 78 m provision for food aid. Mr. Hervé Laudrin (France – D.E.P.) was appointed rapporteur.

The work begun under the deputy chairmanship of Mr. Renato Sandri (Italy – communist) was continued under the newly elected First Deputy Chairman, M. Pierre Deschamps (Belgium – Chr. Dem.). M. Deschamps thus takes over from Mr. Maurice Dewulf, whom he also replaces as Joint Chairman of the "Euroafrican Parliament" Joint Committee, which is to meet in Mauritius at the end of October.

Working with the representatives of the E.E.C. Commission, and the European

Joint Secretary of the Council of Association, the Parliamentary Committee devoted a large part of its work to preparations for the Mauritius meeting. They noted the favourable turn taken in the technical negotiations, which are to implement the decisions reached in Kingston (Jamaica), and expressed particular interest in the institutional aspects of a renewed and enlarged Association. They count on the Mauritius meeting—which will call for high-level representation, both of the Council and of the Commission—to provide plans, in agreement with their A.C.P. colleagues, for forms of parliamentary cooperation which will be maintained and improved. Miss Colette Flesch (Luxembourg – Lib.) will report to Strasbourg on the negotiations for the renewal and enlargement of the Association.

The Parliamentary Committee also confirmed the appointment of Mr. Renato Sandri as rapporteur on relations between the E.E.C. and Latin America. ■

Meeting of the Parliamentary Joint Committee

A meeting of the Parliamentary Joint Committee is to be held in Mauritius on October 23-25. The committee has 38 members, and they to meet at Morne, near Port Louis. Presiding over the meeting will be Peoples' Commissioner Kasongo Mukundji (Zaire), assisted by Mr. Pierre Deschamps (Chr. Dem. - Belgium).

At the formal opening meeting, on Wednesday October 23, inaugural speeches will be made by the Prime Minister Sir Seewoosagur Ramgoolam and the President of the Legislative Assembly, Sir Harilall Vaghjee.

The parliamentarians from the countries associated in the Yaoundé Convention will discuss the general report submitted to them by Sir Satcam Boolell, the Mauritian minister for agriculture, natural resources and the environment. They will also consider a report by the Congo Deputy, Hilaire Mounthault, on the 1973 accounts and the 1975 budget of the Association Parliamentary Conference.

The main part of the work will be connected with the current negotiations in Brussels between the E.E.C. and the 44 Associated and associable countries in Africa, the Caribbean and the Pacific (A.C.P.). Apart from a study of the commercial, technical and financial aspects, it is expected the parliamentary representatives will attempt to define

the institutional links which will feature in the forthcoming renewed and enlarged Association. Among the other subjects raised by members of the Joint Committee, will be the sugar problem and conditions in the Sahel. Representatives of the Council of Association, the E.E.C. Council of Ministers and the European Commission will take part in the discussions. It is expected the increasingly close links between Europe and the Third World will once more be emphasised by the presence as observers of representatives from the A.C.P. countries currently taking part in the Brussels negotiation. ■

Food and Agriculture Organisation

Fall in food production in 1974

It is now "virtually certain" that world food production in 1974 will show a further decline, stated Dr. Adede Boerma, Director General of the F.A.O. (U.N. Food and Agriculture Organisation), at the opening of the 9th European Conference of this organisation at Lausanne on October 7.

According to Mr. Boerma, the "two main critical zones" are the United States and Asia; and he made a further appeal to industrial countries to provide aid for developing countries.

"It is clear that the position regarding world food supplies has grown worse in recent months, and even in recent weeks", added the F.A.O. Director General. He also emphasised the world shortage of fertilizers and pesticides.

The wheat crop in the United States will set a new record, but will be less than sufficient to offset the previous decline in stocks, Mr. Boerma continued. He said, also, that Canada will "see a fall in its supplies of wheat to a lower level than at any time in the past 10 years". The two countries together, therefore, will not be able to export as much wheat as had been hoped.

In other parts of the world, the position is also serious. This applies particularly to Asia, which will again have to import cereals on a massive scale. In the U.S.S.R., wheat production will be below the target, and for the other cereals this will also be the case in Western Europe.

For further information in this connection, readers are referred to the exclusive interview with the F.A.O. Director General in issue No. 27 of Association News, on the prospects for the World Food Conference to be held in Rome very shortly. ■

French Cooperation

Reorganisation of the Ministry

"French cooperation policy, which has in general been successful, needs to be adapted to the changed conditions which have appeared in the last 18 months, and on our own side there is a desire for greater clarity", the French Minister for Cooperation, M. Pierre Abelin, said in a recent statement. He was commenting on the reorganisation of his department and the new orientations of French cooperation policy, on which he made a statement to the last cabinet meeting.

M. Abelin emphasised that four main factors underlay the changes. In the first place the rise in raw material prices is to the advantage of some developing countries and damaging to others. Secondly, there will be an increase in the number of countries (the English-speaking ones) associated with the European Economic Community and its original partners. In this connection, he added, it is reasonable to suppose that the decolonisation of the Portuguese provinces in Africa and various other countries may bring further additions to the number of Associates. Finally, M. Abelin mentioned the increase in the population of Africa, remarking as an "important political factor" that the African countries are joining in big organisations, such as the O.C.A.M., and in regional sub-groups, which do not necessarily consist wholly of former French colonies.

To deal with this "diversity of new requirements", and to obtain "a more assured cohesion of effort", he said, three new directorates had been set up in his ministry. These are, a programmes directorate, which will see to the consistency of French contributions and their coordination with foreign aids; an economic development directorate; and a cultural and social directorate. "What we are seeking to do", said M. Abelin, "is to make our cooperation activity really productive".

The Minister emphasised that the policy must contain no element of paternalism. He concluded: "It must be carried on with the initiative of the African countries, and in agreement with them. For this reason, missions will be leaving for Africa in coming weeks with a mandate to discuss and secure an understanding of the prospects for cooperation, and the methods best conformable to the specific aspirations of each country or group of countries. The whole of this activity is made the easier by the long-standing attachment to Africa of the President of the French Republic". ■

O.E.C.D.

Total aid in 1973 was up 22%, but public aid in real values was down 6%

Public aid by the rich countries to the poor in 1973 showed a further shrinkage in its real value. This is shown in the last report from the Development Aid Committee of O.E.C.D. (Organisation for Economic Cooperation and Development).

The public aid in 1973 showed an increase in its dollar value of around 9%, increasing from \$8 700 to \$9 400 million; but in real terms it was diminished by 6%. The public aid per inhabitant of the developing countries amounted in 1973 to \$4.80, so that the decline in real terms, compared with 1963, was about 30%.

As a percentage of the gross national product (G.N.P. of the wealthy countries, the public aid was no more than 0.30%, compared with 0.34%. We are thus getting a little further away from the target of 0.7% laid down by the United Nations for public development aid.

The total contribution in terms of financial resources to the poorer countries (including public aid, export credits, private loans, private investment and donations) showed a vigorous increase of 22%, from \$19 000 m in 1972 to \$24 200 m in 1973. In real terms, however, the growth was only 6%. As a percentage of G.N.P. the proportion was 0.78%, the same as in 1972. The U.N. target, it will be remembered, is 1%. ■

(from page IV)

atmosphere" which would be a precondition for any permanent commitment by private interests in the African countries.

The introductory surveys were followed by a lively discussion, to which outstanding contributions were made by (among others) the ambassadors of Cameroon, Dahomey, Gabon, Madagascar, Nigeria, Sierra Leone and Uganda. Without seeking to obscure the great differences of economic potential and political systems in their respective countries, the African representatives asked European private interests to contribute to their development in a spirit of mutual trust. ■

metre or 1.06 metres. In Japan, for example, the 1.06 m gauge is used for extremely comfortable express trains, with speeds up to 120 kph which, on some of the services, follow one another at intervals of 3 or even 2 minutes. Moreover, tests have recently been carried out on the renewed track of the Abidjan-Niger line, in cooperation with the specialised section of the french railways. This is an up-to-date track, welded and mounted on concrete sleepers, using comparatively light rails of 36 kg per metre. Using a railcar from the normal equipment of the line, a speed of 130 kph was reached and neither the engine nor the track displayed any special difficulty. With a more powerful locomotive the speeds reached could have been at least 150 kph.

It is sometimes overlooked, too, that in passing through mountain country, the characteristics for the european lines are fully as difficult as those of african lines passing through equally broken country. For example, all the french lines crossing the Massif Central or the Alps have gradients of 25 and even 35 mm per metre and curves which are sharp, when we remember that the standard gauge (1.435 m) has difficulty in negotiating curves of less than 200 m radius, which corresponds to a curve of 120/150 m on a metre-gauge line.

Both in the french and the british types of network, technical innovations introduced in the european systems were brought into the african service very shortly afterwards. This relates to locomotives and rolling stock, the permanent way and methods of operation and management. For example, the Mikado class of powerful steam locomotives (a pony-truck back and forward and 4 driving axles) appeared in Africa as soon as the first world war was over, whereas it was only just before the outbreak of war that they were brought into the french and british systems.

Equipment of a highly technical description was specially designed in Europe for the requirements of the african railways. This included, for example, the famous Garratt locomotives—an articulated engine consisting of two chassis under the same boiler. They were introduced in Senegal, the Ivory Coast and Dahomey in 1935-36 and about the same time on the british african systems. They were also used on the Congo-Océan line, but their introduction came somewhat later.

In some of the new techniques the french colonial systems were actually the pioneers. This was the case with diesel traction, which made its first appearance on Congo-Océan as early as 1936. It was in the years immediately following the Second World War, that the french systems under the responsibility of the French Ministry for Overseas Territories were able to complete their turnover to diesel operation, largely as a result of the freedom of management acquired in this period when they were no longer submitted to administrative regulation, but became para-official organisations of an industrial and commercial character.

In 1960, when the railways became the property of the new independent States, steam traction had already been out of use for several years.

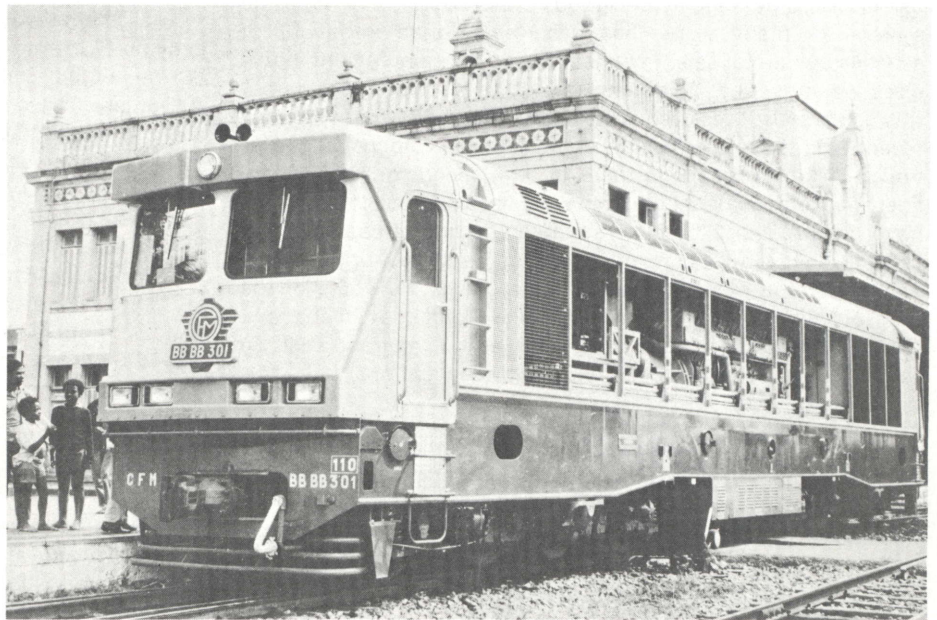
In retrospect it is now clear that the total turnover to diesel operation for the african railways was a decisive step. Not only did it enable them to survive, but it gave them the means they needed for dealing with the increase in traffic which most of them are still enjoying.

In this special field the african railways undoubtedly acted as pioneers for the european railways, which had put their main effort into electric operation, in line with the modernisation programme for the railways of industrial countries.

Dieselisation of course was not carried out without a certain amount of trial and error; and it was only after long experiments on the relative advantages of hydraulic and electrical transmission, that the latter was adopted about 1953. Even then there was initially some hesitation in choosing between single and twin engine locomotives.

The thing which it is essential to remember, is that technical progress in traction was introduced at the same time in Africa and in Europe. As soon as industry was in a position to produce dry rectifiers, so that it became possible to use tri-phase alternators but retain traction locomotives with a semi-continuous feed—which offer the best starting couple—the african systems were able to use high power locomotives. The 2 400 h.p. Alstom locomotive was introduced in 1965 and the 3 600 h.p. CEM locomotive in 1970, which was in both cases about the same time that they came into operation in France.

The 3 600 h.p. locomotive is the most powerful in operation on the african metre gauge railways. It is at present being used by Congo-Océan and in Cameroon and Madagascar. In addition to its power, it has the advantage of being fitted with articulated double bogies, which makes the entry into a curved stretch appreciably easier, diminishing the wear on the rails and



Locomotive in the class BB CEM 3,600 h.p. on the railway in Madagascar.

making it possible to use engines weighing over 120 tons on track which can stand up to an axle weight of only 13-17 tons, depending on the network concerned.

It is worth noting that similar articulated bogies have been fitted on the Congo-Océan timber trucks. They are giving full satisfaction and could be used, also, for ore-trucks.

The african railways were also among leaders in the technique of permanent way maintenance. At an early stage they gave up the traditional method of treating it as handwork and dealing with it by small repair gangs. Instead they used prearranged programmes carried out by bigger gangs equipped with increasingly sophisticated mechanical tools, by which they could precisely localise and assess the faults in the line and the methods for dealing with them. They were also pioneers in rail-welding, and as early as 1955 they were producing continuous welds in sections up to 30 km (from station to station) at a time when the european railway operators were limiting the welds to long rail-bars of 150-200 m.

The welding problems, of course, were easier to solve in Africa than was the case in Europe, because the temperature variations are smaller.

The fact nevertheless remains that the first appearance of station-to-station welds (Dakar-Niger from 1952 onwards) created quite a sensation, and even so high an official as the Director of Fixed Installations for the French Railway System went to Africa to see for himself.

The railway systems of the british type also adopted diesel traction, though somewhat later. At present the turnover is virtually complete in Ghana and Malawi, in Angola (at any rate on the Mossamedes railway), in Mozambique and in Zaïre, as also is the production of long continuous welds (5).

In the systems of the french type, a further measure of modernisation has been taken in the passenger service. The use of mixed passenger-and-goods trains, which was the usual system for many years, has been abandoned in favour of services by rail-car sets. Two decades ago the equipment in this class was powered by locomotives of only about 300 h.p., but this has been successively raised to 550 and 850 h.p. The most recent types have electrical transmission and suspension bogies which make it possible to travel at high speeds on multi-curve lines. The former coaches, which were heavy and uncomfortable, have been replaced by more suitable and lighter coaches, and the seats in the lower class of compartment are now upholstered. The older type of rail-car sets are used only for some of the long-distance trains, covering the line from end to end and containing sleeping accommodation and restaurant cars. In this, too, the other systems, with a few exceptions, have followed suit.

Other innovations require only a brief mention. They include electronic management aids, which make it possible to keep closer control over the use of goods-handling material—sometimes even the prime movers—besides such matters as stocks,

(5) The rate at which these systems turned over to diesel operation depended on the extent to which they still had steam locomotives which had not been fully written off and whether they had easily operated supplies of coal.



Double-traction train in the station a

statistics, traffic receipts and personnel payments. It is worth noting, too, that the railway in Madagascar applies these electronic methods also to the distribution of tickets, and supplies to the ticket offices in all the stations between Tananarive and Tamatave.

In all the railway systems under discussion, there are practically no twin-track lines. The only important exceptions are the 80-km section Dakar-Thiès in Senegal and the 20-km Cécchi-Anoumaba stretch in the Ivory Coast. Everywhere else there are only single track lines with passing points at various intervals. With the very vigorous increase in the demand for transport, since 1960-65, some of these lines are not far short of saturation. Some, indeed, are saturated already, an instance being the section of Congo-Océan between Pointe Noire and Dolisie, which carries nearly 2 million tons of manganese ore and about the same quantity of other traffic, consisting principally of round or sawn timber from the Congo and the hinterland served by river transport on the Zaïre and its tributaries. Saturation is also reported in Cameroon on the Douala-Yaoundé section, a parsimonious investment constructed between 1906 and 1925, which is now very hard put to carry the increased traffic resulting from the opening of the Transcameroon.

Surveys have been made for the purpose of improving the capacity, using all the known techniques which will make it possible to postpone the turnover to twin-track operation into a distant future. The most effective techniques are the increase in the load of the trains and the use of up-to-date light signals and concentrated point-control from a central post.





Loudan

ourastié (Peoples' Republic of the Congo).

Technical and financial aid

Among the problems arising from the rapid passage from colonial to independent status was the fact that the young States could no longer rely on the financial resources of their former metropolitan countries, and lacked resources of their own to cover railway investment, whether for laying new lines or for increasing the capacity of what they had. Moreover, the systems which had hitherto been run under the supervision of european personnel were some time in finding adequate numbers of sufficiently trained candidates in their own countries.

In order to deal with this situation, the World Bank has, since the end of the war, been offering big loan facilities to independent countries for the purpose of carrying out major projects. I do not need, in the present context, to dwell at length on the aid contributed for similar purposes by the European Development Fund. In addition, some of the european countries set up finance organisations on their own, including the French Fund for Aid and Cooperation and a similar fund in Federal Germany. Canada, also, set out on the same crusade in setting up the Canadian International Development Agency. Mention should also be made of the United Nations and its development programme which serves the same end.

Apart from the aid given in the form of loans, some of the assistance funds contribute grants for projects which rank as particularly interesting. In the case of projects of major importance, a number of aid organisations sometimes club together in providing finance. The first operation of this type was undertaken for the building of the Transcameroon, for which

purpose there was cooperation between the E.D.F., the french fund (F.A.C.) and the International Development Association (I.D.A.), which has the joint sponsorship of the World Bank and the United Nations.

For the **recruitment of supervisory personnel**, most of the railway organisations have long had apprenticeship centres and training schools for leading craftsmen. When their countries became independent they had to embark on training schemes up to higher levels, so as to find from among their own nationals recruits for the higher technical and administrative jobs previously held by Europeans.

In this field the railways in french-speaking countries had the benefit of a long-standing organisation, coupled with the unconditional assistance of the french railways. Three schools of higher craftsmanship were set up on a joint basis by the african and malagasy railways which had previously depended on the french administration.

The teaching given in these schools is rounded off by training courses in french railway establishments; and the best pupils may be eligible for further training in one of the administrative high schools run by the french railway company.

The various aid funds are only willing to finance any project if it has been fully worked out and prepared and shows clear evidence of profitability. The preparation of these surveys calls for a full knowledge of ways and means, and there are consultancy offices specialising in the work and able not only to draw up the specifications, but also to provide temporary staff to look after the execution of the project. Acting on these lines, the french organisation, OFEROM (Office Centrale des Chemins de Fer d'Outre-mer), has entered into technical cooperation agreements with the different railway organisations and also with new railway systems, such as the various railway administrations in Zaïre. The organisation of training facilities for senior personnel is one of the facilities provided by OFEROM.

The French National Railway Company (S.N.C.F.), too, has had to deal with many requests for help and advice from railway organisations in distant countries. For this purpose it has set up a railway engineering subsidiary, known as SOFRERAIL (Société Française d'Études et de Réalisations Ferroviaires), which has undertaken many assignments in all parts of the world. A number of european and north american countries have followed suit, the most recent being the organisation CANAC, set up by Canadian National Railways. An unusual form of aid is that given by the (British) Crown Agents for Oversea Governments, which acts on much the same lines as OFEROM, providing both permanent personnel and aid in project surveys.

Last of all is the Peoples' Republic of China, which has made a spectacular appearance by financing, and for practical purposes undertaking, the whole of the survey and construction work for the 1 750 km Tanzam line linking Kapiri Moshi (Zambia) with Dar-es-Salaam (Tanzania) on the Indian Ocean.

The I.R.U. example

The railway has, from the outset, had an international job to do; and it was soon seen to be necessary to create links between the systems in different countries to deal with problems of

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Annexe 1

Locomotives on certain african systems

	Steam locomotives	Electric locomotives	Diesel electric locomotives	Diesel hydraulic locomotives	Rail-cars and railcar sets
Senegal	—	—	38	—	13
Mali	—	—	16	—	3
Abidjan-Niger	—	—	41	—	18
Togo	—	—	10	2	3
O. C.D.N. Niger-Dahomey	—	—	12	—	10
Cameroon	—	—	42	—	12
Congo-Océan	—	—	49	—	13
Madagascar	—	—	38	—	11
Franco-Ethiopian	—	—	27	—	5
ONATRA	—	—	31	—	3 (3 sets of 2 units (1 with engine and 1 coach)
C.F.L. (Zaire)	6	—	6	14	15 (50 h.p. light rail-cars).
K.D.L. (Zaire)	23	56	40	12	2
Nigerian Railway	163	—	72	8	2
East African Railways	263	—	98	—	—
Sudan Railway	96	—	102	—	3 (3 rail-car-sets of 3 fully coupled units).

fares and rates and exchanges of rolling stock. It was not till after the First World War that these problems became crucial, and this led to the formation in 1922 of the International Railway Union.

The I.R.U. is very widely based and a number of the african railway systems are members of it. These are, the Franco-Ethiopian Railway, the Mozambique Railways, K.D.L. and ONATRA in Zaire, Abidjan-Niger, South African Railways and the railways of Algeria, Tunisia and Zambia.

More recently, most of the railways on the african continent came to the conclusion that many of their problems are specifically african, and it would be to their advantage to set up a similar african organisation which, of course, would keep close contact with the I.R.U.

This led to the formation of the African Railway Union (A.R.U.) which was formed in Addis-Ababa in September 1972. Its membership includes almost all the railway organisations of northern and inter-tropical Africa.

This union is still engaged in setting up its organisation, and its first Secretary General has not yet been appointed.

Prospects

Even when allowance is made for the extensive desert area, the railway density in Africa is low, and is still far below the limits of its possible development. New lines are under construction in a number of regions; but only one country has decided to scrap its railway system. This is the special case of Sierra Leone, where the railway system has always been handicapped

by the limited distances covered and by the keen competition from road transport.

All the african systems are affected by road competition. It is even more disorderly than is the case in Europe, and does not satisfy the primary requirements of a public service, which consist of regular departures and unchanging fares and freight schedules. The railways putting up the best defence against this are those covering long distances. In this connection I have already mentioned the outstanding results secured by Abidjan-Niger.

For some of the services the railway administrations have organised their own extension facilities by road or water transport. East African Railways operate connections across Lake Victoria and Lake Albert and on the navigable reaches of the Nile, using ferry boats which can carry coaches and trucks. In the same way, Sudan Railways operate road feeder services and an important river transport system, which has the distinction of being the first in Africa to use the push-convoy technique (about 1935). Another instance is the mixed road-and-rail service in Niger, known as «Operation Swallow», and organised by O.C.D.N. (the Dahomey-Niger Joint Transport Organisation). In the Peoples' Republic of the Congo, there is an important river service which prolongs the Congo-Océan railway and is also run by the A.T.C. (Trans-Congo Communications Agency).

New lines. The most recently opened of the new railways is the Transcameroon, which extends the central line of the Cameroon network from Yaoundé as far as Ngaoundéré. In the construction of this line the first ground was broken on October

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Annexe 2

**Traffic Carried (latest figures published as of July 1, 1974)
(thousand)**

System	R.A.N.	Cameroon	C.F.C.O. (incl) COMILOG	C.F.E.	Madagascar	O.C.D.N.	Senegal	Togo	K.D.L.	Sudan Railways	Nigerian Railways	East African Railways
Period	(1973)	1972-73	(1972)	1972-73	(1972)	(1973)	(1971-72)	(1972)	(1973)	(1972-73)	(1970-71)	(1970-71)
Passengers	2 828	1 718	1 276	368	2 586	1 373	2 760	1 373	1 427	3 383	9 942	4 519
Number pass.-km	883 111	193 199	156 253	78 734	191 820	93 419	241 307	72 685	309 396	1 087 000	(not stated)	863 130
Goods: tons	962	1 146	1 867 (+1 870)	406	809	297	1 910	66	5 920	2 900	1 604	6 227
Ton-km	553 543	332 772	524 171 (+374 015)	223 217	258 039	115 720	338 312	8 865	2 645 087	2 624 000	1 644 100	4 496 000

31, 1964. In April 1969 it was opened to traffic from Yaoundé to Bélabo, 294 km from Yaoundé, which acted as a temporary terminus. Since February 4 of this year trains have been running along the whole system, so that Ngaoundéré is linked with the Port of Douala by a railway 932 km in length, of which 627 km are of recent laying. The Transcameroon traffic has been ahead of estimates and expectations ever since the line came into operation.

For the Abidjan-Niger line the recent work was not really a new line, but a thorough reconstruction of the 106-km section between Agboville and Dimbokro, which was completed in 1973. The authorities concerned clearly regard the railways as having a future, for the new line is laid with no gradient of more than 10 per mille, no curve of less than 500 metres radius, and uses rails of 36 kg per metre.

Under construction on the other side of Africa is Tanzam, the 1 750 km line of which we have already spoken. It is now nearing completion, and by early in 1975 it should provide a link between Kapiri M'Poshi on the zambian railway main line and Dar-es-Salaam on the Indian Ocean. It is already in operation in Tanzania right up to the zambian frontier. It will be the second interconnection between the railways of tropical Africa, the first having been the link between the long line across Angola from Benguela and the K.D.L. system in Zaïre. The interconnection has served to show the importance of the gauges used. East African Railways (i.e. the systems in Kenya, Tanzania and Uganda) run on metre-gauge lines; but the new Tanzam track had to be laid with the english 3ft. 6 in. (1.06 m) gauge, so that it could be linked up with the zambian system.

Interconnection is bound to be one of the principal subjects studied by the A.R.U. for some time to come. It will not only necessitate conversion of the metre-gauge line to the 3 ft. 6 in. gauge, but it will also mean unifying a number of technical arrangements, such as the types of buffers and couplings, heights of buffers, braking systems and loading heights.

In the French-speaking countries a number of decisions have already been taken for the purpose of facilitating interconnection. These include the use of metal sleepers which can be adjusted from one gauge to another by merely shifting the

bolts holding the clips in position. The new rolling stock is designed for gauge adjustment by an easy system for shifting the position of one of the wheels.

There is already an example of a large-scale conversion on these lines. It took place in 1955 on the Great Lakes system in Zaïre. The lines have been laid on the metre-gauge, but they had to be converted to 3 ft. 6 in. (1.067 m), so that they could be connected with another Zaïre system, the BCK railway (now the K.D.L.). The conversion was known as "Operation Big Gauge" and it was carried out in only six days, or three days faster than had been expected. It affected 800 km of track, 350 points, 38 locomotives and 475 trucks and coaches, of which 388 had bogies.

Interconnection will also call for international conventions on fares and freights, including conversion from one currency to another. Consideration will also have to be given to the type and tension of electric current, in case there should be further electrification of important lines. Not long ago it seemed that this electrification problem was not likely to become crucial for many years, because of the big infrastructure expenditure for which it calls. It now seems likely to arise much sooner than was then expected, because of the oil crisis and Africa's enormous water-power potential.

Major railway projects in Africa

Mention must be made of the great projects of the past. From north to south there was the british scheme for a Cape to Cairo railway; and there was the french project for a railway across the Sahara. From west to east the Germans had projected a railway from their colony in the Cameroons to link it with German East Africa—the Tanzania of today.

These splendid projects came to nothing. Progress in ocean transport and commercial aviation has made them out-of-date; but others on less ambitious lines, and affecting only specific regions of Africa, are currently a new feature (such as Tanzam), coming near to reality or in an advanced stage of their preparation.

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Some of these are concerned with remedies for the saturation of existing lines, such as Congo-Océan across the Mayombe, or the Cameroon system between Douala and Yaoundé. In both these cases the solution amounts, in practice, to building new lines. For Congo-Océan there will be a variant of 104 km, to be built south of the existing line, between the stations of Hollé and Dolisie. Work on this is scheduled to begin in 1975. It will require the shifting of 8 million cu m of earth, the building of 12 bridges (combined length 1 230 m), the piercing of 6 tunnels (the longest of 4 600 m and the total length 6 000 m). The rails used will weigh 46 kg per metre, which is the heaviest yet used for a metre-gauge railway; and the signalling will be dealt with from a centralised control, designed to handle the traffic until about the year 2000. In Cameroon the modernisation of the track between Douala and Yaoundé is spoken of as the "Third Section of the Transcameroon", for it is the direct result of the construction of the latter. It will not call for a new line of comparable length to that of the Congo-Océan variant, but it will call for a great many rectifications of the existing track.

Among the operations which have been designed to increase the carrying capacity, mention must be made of the recent outstanding improvement carried out by Benguela Railway. When this line was built in 1902, time was an important factor; and this led to the acceptance of a system leaving Benguela by rack-rail over a distance of 2 120 metres. This peculiarity proved very awkward in operation; and in 1971 it was done away with by building a 12-km variant with a gradient of 15 per mille, which provides an "on-the-track" journey for the whole length of the line.

Mention should also be made of **two important new lines projected** in French-speaking countries.

The first of these is the 338 km line in Gabon, between Owendo and Boué, work on which was put in hand at the beginning of this year. Its initial function will be to provide an off-take for timber felled in the area through which it passes. Under the projects of the Gabon government, it is to be extended beyond Boué by two feeder lines, one of which will run into the Moanda-Franceville area, where there are seams of manganese and uranium, and the other into the Mékambo-Bélinga region, which is potentially important because of the iron ore.

The Gabon system is breaking with regional tradition, because it is to be laid on the standard gauge of 1.435 m. This rules out any future connection with the neighbouring networks in the Congo and Cameroon.

The second major project to be mentioned is the railway to connect the various systems in Zaïre, and will involve some 1 500 km of new line. The first connection envisaged for this operation is between Matadi—the present terminus of the railway from Kinshasa—to the Port of Banana. Matadi is a river port, and it was chosen for the purpose in 1885 as the closest approach possible to the Stanley Pool. At that time, cargo vessels were seldom, if ever, above 5 000 tons; and the port is now quite unsuitable for the ships of today, despite the considerable extension works and dredging operations. It is this which makes it necessary to open up the deep-water port at Banana, which is directly on the Atlantic, and this means extending to it the railway which now stops short at Matadi.

The second railway envisaged will link Kinshasa with Ilebo on the river Kasai, which is the present terminus of the K.D.L. main line.

The third section of this very important programme will provide a rail link between the sections of the Great Lakes system, which at present end abruptly at Ubunda and Kundu.

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Railway transport in Africa therefore has a promising future. It is a great instrument in the development of the countries it serves; and the energy crisis cannot but have a good influence upon it, since it is by far the most economical in energy consumption of all methods of transport. Moreover, in the present state of technical knowledge, the railway is the only transport system which can work by electricity. Beyond this, too, there is the aspect described by Louis Armand;

"it is an enterprise of such scope in the country, that its future must be discussed not in terms of its own prosperity or its maintenance, but in terms of the great imperatives of the country's own growth".

This remark is as apposite for Africa as elsewhere. I hope I have succeeded in this short survey in showing what the railway has done for Africa in the past, and what Africa can expect of it in the future. ■

P. PROTAT

• Readers interested in the african railways will find considerable information about them in the monthly review "La Vie du Rail Outre-Mer", published by OFEROM (38, rue la Bruyère, 75009 Paris) for the past 20 years.

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The rail situation in English-speaking tropical Africa

by Sir James FARQUHARSON (*)

The railway systems of the countries in tropical Africa which were formerly British-administered have been developed over the last eighty years. The original lines were built principally to meet administrative needs and to make effective the occupation of the metropolitan power. In some cases special reasons existed; the line from Mombasa to Kisumu on Lake Victoria was built specifically to destroy finally the trade in slaves.

At the turn of the century only the coastal fringes of tropical Africa could be regarded as having exchange economies. Elsewhere subsistence economies prevailed, to relatively high standards in areas favoured by good soils and reliable rainfall such as Bugunda. In less favoured areas famines were frequent. The advantages of exchanging foodstuffs between areas served by rail and of exporting local produce to buy imported goods were quickly recognised. The railways were the means by which living standards were first raised over vast areas.

With the recognition of the potential of the railways to bring economic development, substantial extensions to all the systems

(*) K.B.E., BSc., C. Eng. FICE, General Manager Sudan Railways 1952-57. General Manager East African Railways 1957-61.

were made after the first World War. During the period from 1919 to the onset of the 1930 economic depression, additions to the systems were made solely on economic grounds, taking account of the potential of the area rather than the current level of production and trade. The wisdom of building railways, ahead of demand, can be assessed by the fact that the major railways of the region are now either financially sound undertakings or easily capable of so being. Also few lines have been closed because of the low level of traffic. The depression of the early 1930s and the Second World War prevented further additions to the systems. However, from the end of the war railways were extended up to the early 1960s. Most new lines were built very economically using both locally-based contractors and departmental staff. Since then the only major construction has been the Chinese-financed line from the port of Dar-es-Salaam to the copper belt in Zambia.

Though there have been cyclical variations since the 1920s, the freight traffic on all systems has continued to expand at an average annual rate of around 6%. This increase, which still continues, has required continual adaptations and improvements to ensure that capacity was kept ahead of



Beyer-Garrat "59" locomotive on the East African Railways.



demand. Generally the systems have been well developed to meet the increasing requirements of the countries they serve both as regards internal movements and export/import flows. Though passenger services are an important means of medium and long distance travel, revenues from these services usually provide less than 10% of the total receipts. The limited speeds possible (because of gauge, curvature and grades) will cause this traffic to decline in relative importance though the absolute volume will probably be maintained.

The reasons behind the current difficulties⁽¹⁾

In spite of the favourable factors—locomotives and rolling stock well suited to current needs, adequate infrastructure and rising traffic levels—all the larger systems have, in recent years, been in major difficulties, sometimes financial, sometimes operational, and often both. What are the reasons which have caused this situation to develop since the various countries obtained their independence?

First, nearly all the countries and regions served have had **major internal difficulties** which have had serious effects on the operations of the rail systems. Ghana has had a series of dictatorships interspersed with democratic rule. Nigeria has passed through the trauma of a lengthy civil war. Sudan has had frequent changes with varying periods of military rule and parliamentary government. East Africa has been relatively stable though the differing policies of the three states have (as will be discussed later) created difficulties; problems have been particularly serious since the advent of a military government in Uganda with threats of war between Uganda and Tanzania. Zambia has had special difficulty in establishing its own system after the joint undertaking with Rhodesia was shared by the two partners. Only the relatively small Malawi railway has operated in a stable environment.

Second, there has, in most cases, been a **failure to establish and operate a sound administrative structure** between government on the one hand and the railway executive management on the other. This failure has arisen from the lack of appreciation of the long-term nature of railway activities and of the need for sound and consistent policies over a period of years. Most of the railways are established as public corporations with boards responsible to the appropriate Minister and below the boards a chief executive is responsible for the management of the undertaking. This general arrangement is sound but has, in most cases, operated unsatisfactorily.

The board members (preferably non-executive) should be men of experience, integrity and proved good judgment able to serve the public interest. Such a board can absorb the factional pressures from the legislature and moderate any over-readiness of the Minister to give inappropriate directives. Unfortunately governments have often failed to appoint suitable members and the boards have failed to give clear and consistent instructions to the chief executive. Moreover members have often interfered in executive matters. Faulty operation of the system has led to unsound policies and has

diminished the sense of personal responsibility which should influence the actions of board members and senior executives.

Third, **the quality of senior and middle management has not been good enough** to deal with the pressures arising from faulty and changing policies during a period when the demand for transport services has been increasing at an above-average rate. Politicians, the public and the staff themselves have pressed for the rapid localisation of the management at all levels. Governments have, in complying with demands, failed to realise the heavy burdens which ineffective management can place on the users of transport services. The men appointed usually have the basic professional qualifications but they have had too little of the practical experience, at all levels, necessary to develop the mature judgment on the best ways of maintaining and operating a railway and planning its future development. Management structures have usually become unnecessarily complex, so undermining the personal responsibility of individual executives. Ineffective management has led to poor operating performances, inadequate standards of maintenance, lack of financial control and the spread of corruption.

Fourth, during the past two decades **competition has developed from road transport**. With improvements to roads some short haul traffic was bound to be lost but a substantial volume of medium and long distance traffic has, quite unnecessarily, been transferred to road. In general the cost level of these railways is such that average costs per ton-mile are significantly below the level which can be achieved by road operators. Transfer takes place mostly because of the failure by the railways to carry the traffic in a reasonable time or from unwillingness to adjust the tariff to meet competition. In extreme cases government agencies have paid from two to five times the charges by rail to have traffic moved by road. Better utilization of locomotives and rolling stock and more flexible tariff arrangements could quickly correct this situation.

Fifth, the past two decades have been a period of **increasing difficulty in obtaining external capital**. In all the world's financial centres capital has become scarce and dear. Continuing inflation renders it almost impossible to obtain long-term loans. Money becoming available from foreign lenders or from an undertaking's own resources should be spent with great care. The purpose of a railway is to carry traffic on demand as economically as possible. When capital is scarce and dear it should be directed to achieving this end if the undertaking is to fulfil its purpose and remain credit-worthy. With the inadequacies already mentioned in higher control and management, investments have not always been made to the best advantage. With capital likely to remain expensive and difficult to obtain this question needs close attention on all systems. In one area mistakes are probably still being made. Most of the rail systems under consideration originally controlled the ocean ports. This was a sensible arrangement as a very high proportion of the import and export traffic was carried by rail. However, conventional wisdom until recently was that ports should be separate undertakings and governments have accepted advice to establish port authorities. This involves more capital expenditure on infrastructure, poor utilization of expensive equipment (particularly wagons) and the creation

(1) Editor's sub-titles.

of new management units at a time when men of the requisite calibre are scarce. Yet the modern trend is for the transport user to require the through transit of goods (carried to an increasing extent in containers and similar packages) by one responsible organisation.

The railways of East Africa

From this review of some of the problems facing the railways of states formerly British-administered a brief account of the East African Railways may be of interest. This system is the largest in tropical Africa and serves the three countries of Kenya, Uganda and Tanzania as well as carrying some traffic to and from Burundi, Rwanda, eastern Zaïre and Zambia. It is owned and controlled by the East African Community which links the three countries in a network of important public services. The relationship between the three governments and the East African Railways Corporation is, in its present form, based on the Treaty for East African Co-operation, effective from 1 December 1967. This railway undertaking was formed in 1948 by the amalgamation of the Kenya and Uganda Railway, which served Kenya and Uganda, and the smaller Tanganyika Railway which served the continental part of what is now Tanzania. The amalgamation was based on the assumption that the three British-administered countries would move, however slowly, towards a form of federation with a strong federal government. As the countries obtained independence in the early 1960s they all declared their ultimate intention to federate but differing ideologies and differences on a number of issues have prevented progress in that direction. Yet periodically all three states have re-affirmed their intention to retain the common services. The Corporation's chief executive is the Director-General who is responsible to a Board of Directors. The Board is responsible to the Communications Council (consisting of Ministers from each country) which reports to the East African Authority (the three Presidents).

The system extends to 3 663 route miles spreading westwards from the ocean ports of Mombasa, Tanga and Dar-es-Salaam. Three rail terminals on Lake Victoria (Jinja in Uganda, Kisumu in Kenya and Mwanza in Tanzania) are connected by wagon ferry services and passenger and cargo vessels link these and other ports. Services for passengers and goods are also provided on Lake Tanganyika. Road services are provided over 2 516 route miles mostly to south-west Tanzania. In 1971 (the latest year for which statistics have been published) freight totalled 6.1 million tons and 2 566 million ton-miles. Passenger traffic amounted to 6 million journeys and 594 million passenger-miles. After meeting all operating expenditure including depreciation and servicing all the borrowed capital, the organisation had a deficit of 21.7 million shillings. Since then the position has been deteriorating. By the end of 1972 there was an accumulated deficit of 176 million shillings.

The traffic density over the system varies greatly between 9.5 million gross tons (locomotives plus trailing loads) over the Mombasa/Nairobi section to 0.5 million tons or less on a few branch lines. To meet these conditions the rails used in the track vary from 95 lbs/yard to worn 45 lbs (say around 40 lbs)/yard on light traffic lines. The standards of tracks and

bridges are well suited to the level of traffic. The system is single line throughout with adequate passing loops. The lines pass through many types of country at varying elevations. The main Kenya/Uganda line crosses the western wall of the Rift Valley at 9 036 feet, practically on the Equator. In spite of the great variations in altitude the maximum grades on this line are 1.5 % against west-bound traffic and 1.18 % against east-bound traffic. Diesel locomotives have gradually been replacing steam and now account for around half the mileage worked. The oil-burning steam units left in service are of modern design and continue to give effective service. The staff totals 42 000.

In spite of the high volume of traffic and the sound infrastructure the railway undertaking has, in the past three years, slid into a crisis situation. Traffic has not been carried because of inadequate maintenance of locomotives and rolling stock and poor operating performances. Accountancy systems have been breaking down. Funds have not been available for essential spares. Delays have occurred in servicing debts because of the failure to transfer funds between the three countries. Bank overdraft limits have been exceeded to an extent which has prevented wages from being paid when due. The troubles came to a head with the publication of a very frank report by a select committee of the East African Assembly—the legislative body dealing with Community services. The report was very critical of the conduct and ability of some senior executives and some members of the Board of Directors. This report was later discussed in the Assembly where further irregularities were disclosed. In the meantime the World Bank (the principal provider of capital in recent years) has taken action to assess the situation and find a way out of the present difficulties in consultation with the interested ministers of the three countries, representatives of the Community, the members of the board and senior executives of the railway.

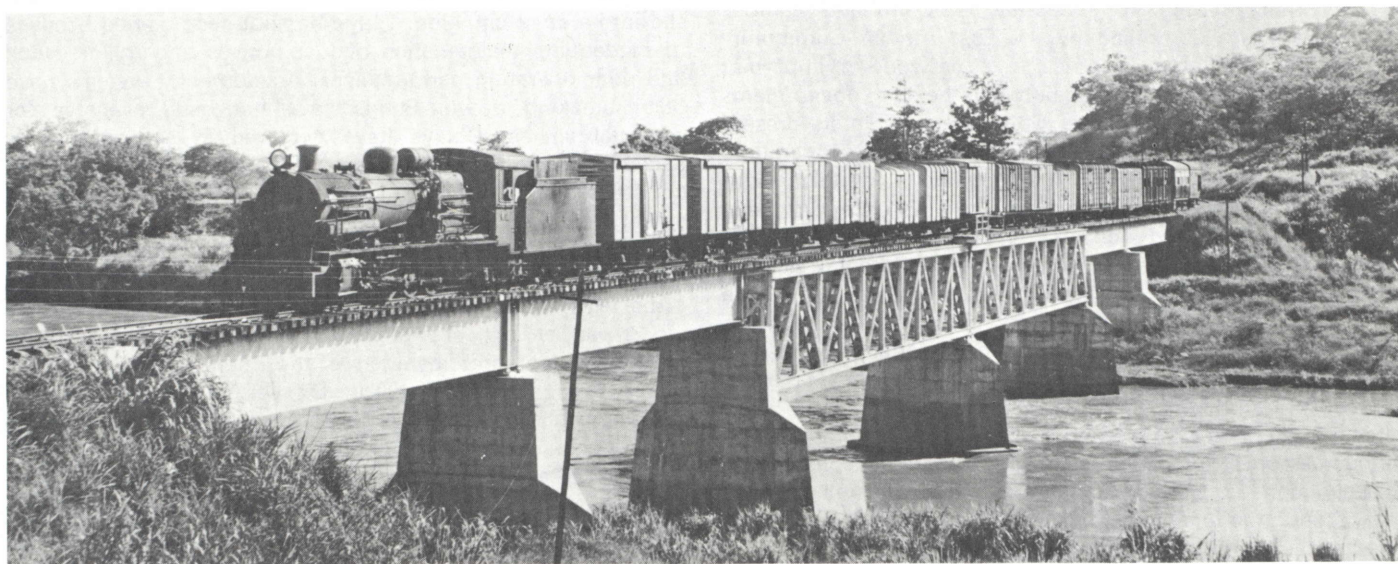
According to press reports the main results of the discussions have been somewhat as follows. First, the three governments have agreed to provide by November 1974 about 150 million shillings to meet immediate cash needs. Second, the management of the railway is to be decentralised so that all operations in each country are to be the responsibility of the regional management with the central management acting mainly as a co-ordinating body responsible for liaison with the Community. Third, tariff changes are to be made to secure more revenue. Fourth, the management is to be strengthened by bringing in a team from Canada to improve financial, management and operational performances and to plan the arrangements for decentralisation. It may be noted that the arrangements now proposed could lead, without too much difficulty, to the creation of three independent railways.

It is, of course, easy for legislators to criticise individuals involved in the working of the undertaking and doubtless many of the points made are valid. However these legislators represent the three governments which set up the over-complex machinery to deal with railway matters and which were responsible for the appointment of board members and senior executives. In fact the failings which have developed are the almost inevitable result of the initial decisions of the three governments. Earlier it was stated that in none of the rail systems being

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considered had satisfactory administrative arrangements been made between the appropriate minister on the one hand and the railway management on the other. The position in East Africa was made very much more difficult in that three ministers (forming the Communications Council) were involved and each minister was bound by the views of his government. Moreover insofar as the finances of the governments were concerned (and all governments individually and severally guaranteed all loans for railway purposes) each Minister of Finance had to be consulted. All this had to be done when the partner states were often, to put it mildly, not on the best of terms and when two of them were on the verge of war. Also,

If the new arrangements achieve no better results than those now in force there may be no alternative but to create three separately controlled systems. Indeed the arrangements proposed appear to be, at least, halfway on this course. Such a break-up of the system need not be the disaster it is sometimes assumed to be. Collaboration between three connected systems to deal with standardisation, time-tables etc. could be arranged at executive level. Whether as one railway or three it is to be hoped that the undertaking (or undertakings) can be quickly established on a sound basis with the responsibilities of bodies and individuals clearly defined with the simplest possible organisational structure. There are no difficulties which cannot



Goods train crossing the Ruaka river in Tanzania.

in addition to the Chairman and Director-General, each partner appointed two members to the Corporation's board and one from each state was permanently resident at the railway headquarters. The intention seems to have been that these resident directors should endeavour to safeguard the interests of each partner, an interest which was probably seen as more important than the health of the undertaking. These complex arrangements and the difficult interstate relationships which often existed led to interminable delays in obtaining decisions, to unsatisfactory policies resulting from the necessity for unanimity and to a declining sense of personal responsibility amongst the board members and the executives at all levels.

be resolved in a relatively short time if there is the will so to do.

For the economic well-being of the peoples of the countries of tropical Africa it is of first importance that the rail systems should be firmly placed on a sound basis and used effectively to meet the needs of the users. When this has been achieved consideration should be given to linking all the systems, over a period, so that there is a complete network south of the Sahara thus allowing the free movement of people and the fuller development of interstate trade throughout the region. European countries have, in the past, done much for the progress of Africa. More could still be done to create a continental rail network. ■

Sir JAMES FARQUHARSON

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The E.D.F. on the track

by Daniel VINCENT (*)

Ten years or so ago, it was the done thing to say the railway was old-fashioned and that Africa, where it was no more than embryo, could skip this stage in its transport infrastructure. In the past two or three years railway systems have been re-born, and the energy crisis has given decisive impulse to the change, which is specially to be seen in Africa. This has given the lie to those visionaries who were so enthusiastic in their strictures. The European Development Fund is proud that it always believed the railways in Africa had a future, and that its policy has always been to contribute to their extension and modernisation.

Railways began to make their appearance in Africa at almost the same time as they did in Europe and America. The surveys for the line to link the Mediterranean with the Red Sea were put in hand in 1834, or only four years after the opening of the line between Liverpool and Manchester, and the line in South Carolina. The work on this was completed in 1858. In those days there was no such thing as motor transport; and wherever waterways were lacking or impracticable, the only way of getting into the african continent was to build a railway. Everyone has heard of the dramatic irregularities of the great african rivers, and in the early days one of the people most impressed was H.M. Stanley, when he set out (1879-82) to drag a flotilla of four steamers up from Banana to Kinshasa. After each stretch of navigable river the boats had to be taken to pieces, carried by porters to the top of the falls and then put together again to sail the next stretch. The great explorer knew what he was talking about when he said (Nov. 1882) "without a railway the Congo is not worth a penny".

The african railways built by the colonial powers in the first half of the 20th century were no more than penetration routes, starting from the seaports and leading straight up into the interior. Such is african topography that many of them had to find their way from the coast across mountainous and broken country which made the route survey a matter of special difficulty. This accounts for the fact that south of the Sahara the usual thing was for the track to be laid in metre-gauge, or the english near-equivalent of 3ft. 6 inches. Such lines are much better than the standard-gauge lines of Europe for tackling sharp curves and keeping the train on the rails. The contractors of those days did not have the earth-shifting equipment used today, and this major expense had

to be spared so far as possible, so that the colonial railways are apt to meander. Nowadays it is only with difficulty that we can think back to the toil and sweat which went into their construction, but the articles of Albert Londres and the notes of André Gide provide us with eloquent testimony.

One fifth the energy used on the roads ⁽¹⁾

Competition between rail and road in Africa came mainly after the Second World War. The permanent way had been inadequately maintained in war conditions, rolling stock and material had not been renewed and the systems were unprepared for the sudden post-war leap in their traffic. The roads, on the other hand, had the benefit of official complacency, later to be denounced in the United States by Ralph Nader and in France by Alfred Sauvy. The roads were able to skim the cream off the traffic and there was no reasoned policy of transport coordination. There was virtually no regulation of road transport, and what there was remained unenforced. It was an anarchy of competition, in which it must be admitted, the small road hauliers were dynamic in getting the better of the commercial incapacity of the railways. As Alfred Sauvy so tellingly explains in "Les quatre roues de la fortune" (The Four Wheels of Fortune), the public interest was far from being uppermost.

Road transport enthusiasts are vigilant and stubborn in holding onto their advantage; but in recent years there has been a new disposition to consider the problems of the railways. For obvious reasons, a mode of transport which **uses only a fifth of the energy to carry the same tonnage as the road haulier**, has got to be given full consideration.

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(*) Head of the division "General Infrastructure and Industry", Commission of the European Communities.

(1) Editor's sub-titles.

Even before the recent energy crisis, it had become clear that the railways were capable of being highly useful to african countries for many years to come. Economic considerations demand that, in the years ahead, the african railways should be brought up-to-date and extended. There is still much to be done. Georges Bernard reminds us in "Industries et Travaux d'Outre-Mer" (Industries and Public Works Overseas) that Africa, with a population of about 10 inhabitants per sq. km, is comparable with the U.S.S.R., but it has only a single kilometre of railway track for every 392 sq. km, whereas Russia has 1 for every 166 sq. km. We can hardly stretch the comparison to include the European Community, where there is 1 km of railway line for every 13 sq. km of territory.

It is a well known fact that the railway is at its best in competing with the roads where it is a question of long hauls and big tonnages. The immensity of the african continent, of course, sets up the need for long (often very long) hauls. On the question of the tonnage carried, it is often said that there is a threshold of 300 000 tons if a railway is to be worthwhile; and already most of the african systems show average traffic figures in excess of a million tons, and often considerably higher. Progressively, too, the vast mineral resources of the african continent are being brought to market, which calls for systematic recourse to railway transport.

Until recently the main effort of the railway authorities has been to extend their existing systems so as to provide better service to regions in the interior. On these lines the R.A.N. (Abidjan-Niger) system has been extended to Ouagadougou, the N.R.C. (Nigerian Railways) to Maiduguri, the Regifercam (Cameroon) as far as N'Gaoundéré. In recent months these schemes have demonstrated their usefulness; but they have also served to show that they are in themselves insufficient.

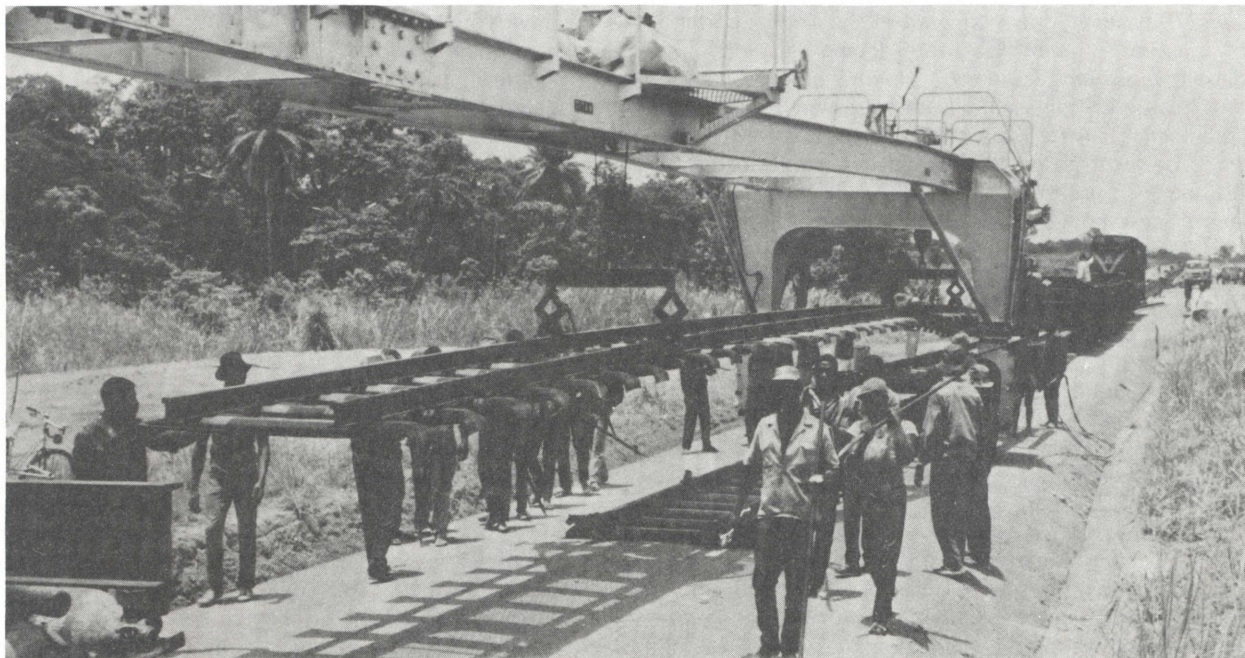
This fact came to the surface in the movement of emergency aid supplies to the populations of the Sahel.

These extensions of course were limited in scope, and were not on a scale to produce connections between the different national systems, and set up a genuine african network. They have not broken down the traditional pattern, by which the main part of african trade is with the outside world and therefore through the seaports; and one consequence is, that the railway sections which are most overloaded are the coastal ones, which are the oldest and the least favoured by the lie of the land, the climate and the crops. Most of the railway transport, therefore, is carried in the worst conditions.

The railways with insufficient resources and inadequate aid have not succeeded in converting and equipping their coastal lines to the extent desirable for the economic handling of the increased traffic. In general they have done enough to moderate the sharper curves and steeper gradients, and to renew the permanent way. The need for thorough modernisation is becoming specially acute everywhere.

5% of the credits awarded

The European Development Fund has followed a policy, in its own sphere, of always being ready to help the african railways. It has in fact intervened in Senegal, the Ivory Coast, Upper Volta, Congo, Madagascar, Togo and Cameroon. In the last mentioned, it made a major contribution for building the Transcameroon between Yaoundé and N'Gaoundéré. It is the same policy which has led the Commission to approve E.D.F. participation in financing the Transgabon line. Gabon is one the four african countries which have a seabord but



Laying the track for the Transcameroon.

have not yet any railway such as exists in all the 28 other coastal countries.

In the personal opinion of the writer, it does not seem likely that this E.D.F. policy will be reversed in the early future. Some people, it is true, are apt to look askance at infrastructure projects, and some of the aid organisations systematically limit their intervention in this field to leave their funds free for operations classed as "directly productive". The conflict, however, looks altogether artificial, and in matters of development it is a risky business to lay down hard and fast priorities, or to apply with undue strictness the same pattern of consideration to every case arising. A smooth development of the economic systems implies that the transport sector must not be neglected; and it seems to me that there is a big risk in seeking to abandon the transport infrastructure, and especially the railways, to their own sorry lot. Having said this, I must admit the counterpart, which is that we should avoid excesses in the opposite direction; and the Commission has up to the present succeeded in this by providing for railway transport the reasonable proportion of about 5% of the total credits awarded. It would not seem to me to be disproportionate if this percentage were to be maintained, or even slightly raised to deal with the big programmes under consideration.

New lines and modernisation

For the coming decade many of the african railway systems have formulated ambitious investment programmes, and have secured for them a high priority rating in their national equipment plans. These programmes include projects for new lines, such as the continuation of the Transgabon railway across Gabon to Franceville and Belingua; and the inter-connection of the various systems in Zaïre, giving them access to the projected deep-water port at the mouth of the river. Once such project has already been put forward to the Commission, with a view to finance from E.D.F. IV. This is the extension in Upper Volta of the Abidjan-Ouagadougou line as far as Tambao in the north-eastern part of the country. The two-fold objective would be, to facilitate operation of an important occurrence of manganese and to end the isolation of the Liptaki-Gomma region, which is an important part of the sahel region in Nigeria, Mali and Upper Volta.

The other projects under consideration are broadly in line with the need I have mentioned for giving the older sections capacity enough to handle existing traffic economically, and enable lines which are nearing saturation to cope with the serious increase in traffic expected in the next few years. In Senegal and the Ivory Coast this modernisation is being carried out gradually, in some cases keeping the same track and in others laying a new one, section by section, a little way away from the old one but parallel to it. This allows the investment to be spread over a period and facilitates adaptation to the growth in traffic. Cameroon and Congo, too, have submitted their projects to the Commission; but here the approach is more radical, involving the full-scale reconstruction of the old sections of line as part of a bigger scheme calling for a very considerable investment. For these countries there is a material difference in the physical conditions. The old

tracks have to be abandoned and the projects comprise long variants some way away from the initial track. In the Congo, the opening of a completely new section for getting across the Mayombe calls for completion in a single stage. In Cameroon there is some possibility of dividing the work into five or six sections; but some of these—especially the "hell" section, Eseka-Makak—already weigh heavily upon the cost.

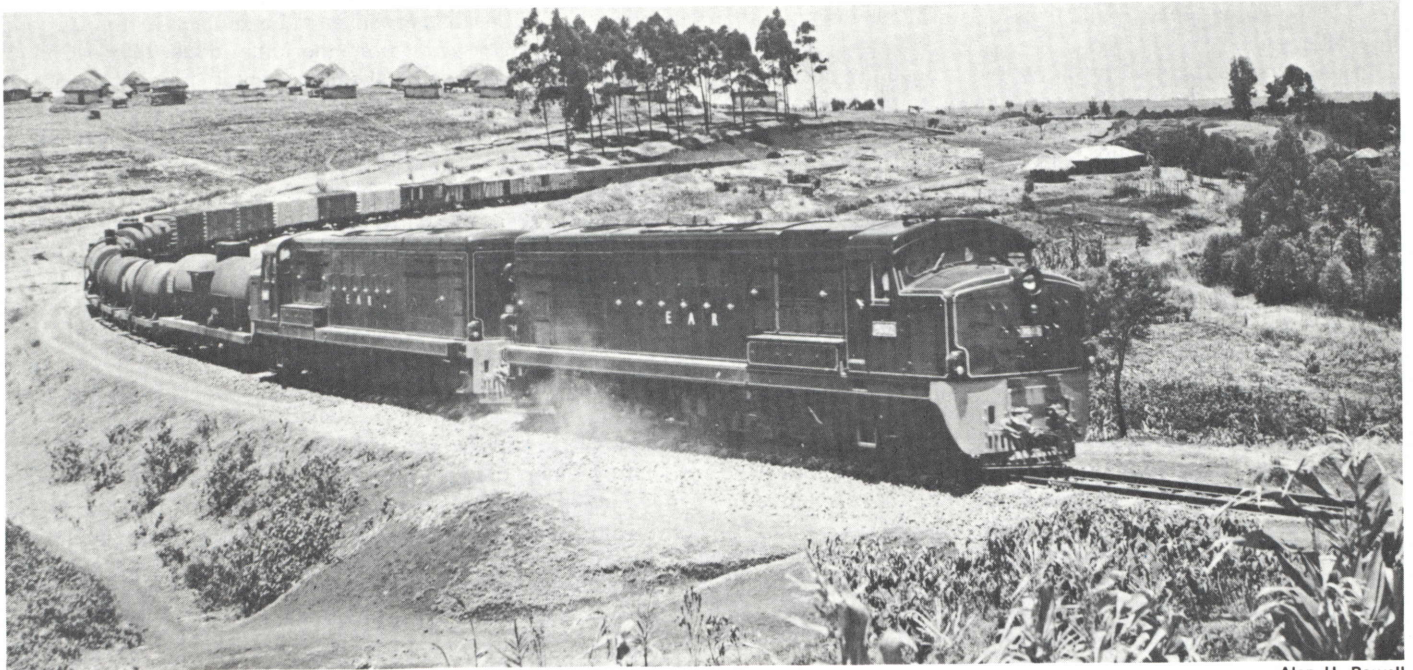
In order to defer these investments to the most advantageous date, good results may flow from using modern techniques to increase the capacity of a line without any change in the track just yet. This can be done, for example, by strengthening the "armament" (rails, sleepers and the ballast) so that the load of individual trains can be increased and the capacity in the same proportion. Good results may also be obtained by using better locomotives, with axles carefully studied for taking sharp curves and with power enough to haul heavy loads up steep gradients. The same applies to the signalling, in which the use of more elaborate systems instead of the old "up-and-down" signal, has a direct and immediate effect on the capacity. Most important of all is good management and good organisation, which can make a material difference to operating conditions. For this purpose the primary need is to extend and intensify the personnel training, for good railway men can work miracles even on a bad line. It sometimes seems as though the african railway authorities underestimate the possibilities I have mentioned. This is a pity; for an infrastructure project must not be used as an easy way for securing a result which could be attained at less cost by **better equipment, better management and better personal training.**

Though there is no need to dwell on the many technical problems connected with the railways, it nevertheless seems desirable to mention some of them as being of primary importance.

The gauge and the rails

There is no need to repeat the reasons which underlie the generalised use of metre-gauge railways in Africa south of the Sahara. Nowadays, remembering the african topography, this choice seems to have been a good one, especially since the development of railway technique has been such that a comparatively narrow gauge is not now a handicap, even for the offtake from mines or other very heavy traffic. The quality of a railway is not proportional to the gauge used. For example, the spanish railways are by no means the best in the world, though they do in fact use a gauge of 1.676 m. The O.A.U. has expressed the wish that all the african railways south of the Sahara should use the "english metric" gauge of 3 ft. 6 in. (1.067 m). Any modernisation or extension of railways using the "normal" metre gauge must accordingly be designed for a subsequent change in the gauge. It should be noted, of course, that as between two gauges so close to one another, conversion does not raise major difficulties. When this had to be done on the Great Lakes system in Zaïre in 1955, the operation took only 6 days for 800 km of line. The progressive standardisation of the gauge will facilitate future interconnections between the systems of different countries and thus help to set up regional networks and

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Alan H. Powell

Diesel locomotive, 1840 h.p., in use on the Nairobi-Nakuru Line.

(why not?) the trans-african network which must ultimately follow.

The track material is developing. Rails below 30 kg per metre are no longer used. The desire to allow heavier axle-loads is leading to the use of 36 kg rails, and in some cases even 46 or 50 kg. Metal sleepers are being superseded by timber or concrete sleepers of local manufacture. The use of sleepers made from tropical timber, which had excellent results on the Transcameroon, is now called in question by the considerable increase in their price. In the circumstances it might be preferable to export the timber and come back to local concrete. The development in Africa of many small plants producing manufactured cement of excellent quality tells in favour of a more generalised use of the concrete sleeper, which has good credentials for railway use. For some years the welding of the lines has been a systematic practice, and a partial shim is only maintained in rail sections laid on wood sleepers. The welding of rails in Africa is well in advance of the European practice, partly because the temperature variations are smaller.

Steam, diesel and electric traction

In all the countries within the E.D.F. sphere of influence, railway traction is entirely done by diesel. The only exception is in Zaïre, where 850 km of the K.D.L. line are electrified, and this line and the G.F.L. still possess a few steam locomotives. The conversion to diesel traction was largely responsible for increasing the efficiency of the railways during the last few years. Further consideration is of course prompted by the new facts dominating the oil market. Steam haulage

might perhaps come back into favour in countries which have not wholly given it up, such as Ghana, Nigeria, Malawi, Kenya, Uganda, Tanzania and also Angola and Mozambique. There might also be a further drive for all-electric traction, especially in countries which have considerable hydro-electric resources and despite the dimensions of the initial investment required for this technique.

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As we have seen, one of the characteristics of railway projects is that they necessitate big investments which exceed by a wide margin the resources available to the operators themselves. Not only do the countries concerned find it necessary to seek external aid, but in most cases it is necessary to look for funds from several sources. It is a very real point of interest in these projects that they encourage international cooperation in carrying out a common undertaking. E.D.F. is often asked to be one of a consortium of financing bodies. This is partly because the railway organisations concerned are not in a position to face unduly high finance costs, so that they have to ask for subsidies or loans on specially favourable terms; and partly because the E.D.F. has, on several occasions, shown its capacity to participate in co-financing, and even to put on foot the arrangements for organising it. In this one can see an indication of confidence in the way the economic, financial and technical aspects of the schemes is examined in the Brussels organisation. In the framework of the new Association, the departments of the Commission concerned in this work are, of course, ready and willing to continue this effective and sympathetic cooperation. ■

D. VINCENT

The Transcameroon:

The second main section came into operation in 1974: now for the re-laying of the Douala-Yaoundé section

by Luc TOWA FOTSO (*)

The Transcameroon line is now the name used in Cameroon for the whole of the railway linking Douala, the business capital, with Ngaoundere, the chief town in the big department of Adamaoua. The line is built in three main sections.

The story dates back to 1907, to a journey in Africa made by Herr Dernburg, head of the Colonial Office of Imperial Germany. This led to the framing of an enormous railway construction programme for Central Africa. It included the Mittelland Bahn, or central line, which was to link the port of Douala with Yaoundé. The necessary borrowing was provided for in the law of May 18, 1908, and the contracts for the work were awarded to the Lenz Company, dated February 5, 1909 and January 4, 1914. The outbreak of the First World War six months later put a stop to the work when the line had reached Eseka, 173.6 km from Douala.

In 1922, when the war was over, work was put in hand for extending the Douala-Eseka line to Yaoundé. On August 15, 1927, the station at Yaoundé was opened to commercial traffic.

This was not the end but the beginning. The french authorities regarded Yaoundé as only the first stage, the starting point of a great arterial railway through Cameroon which was to go as far as Garoua. Unfortunately the franc crisis made it impossible

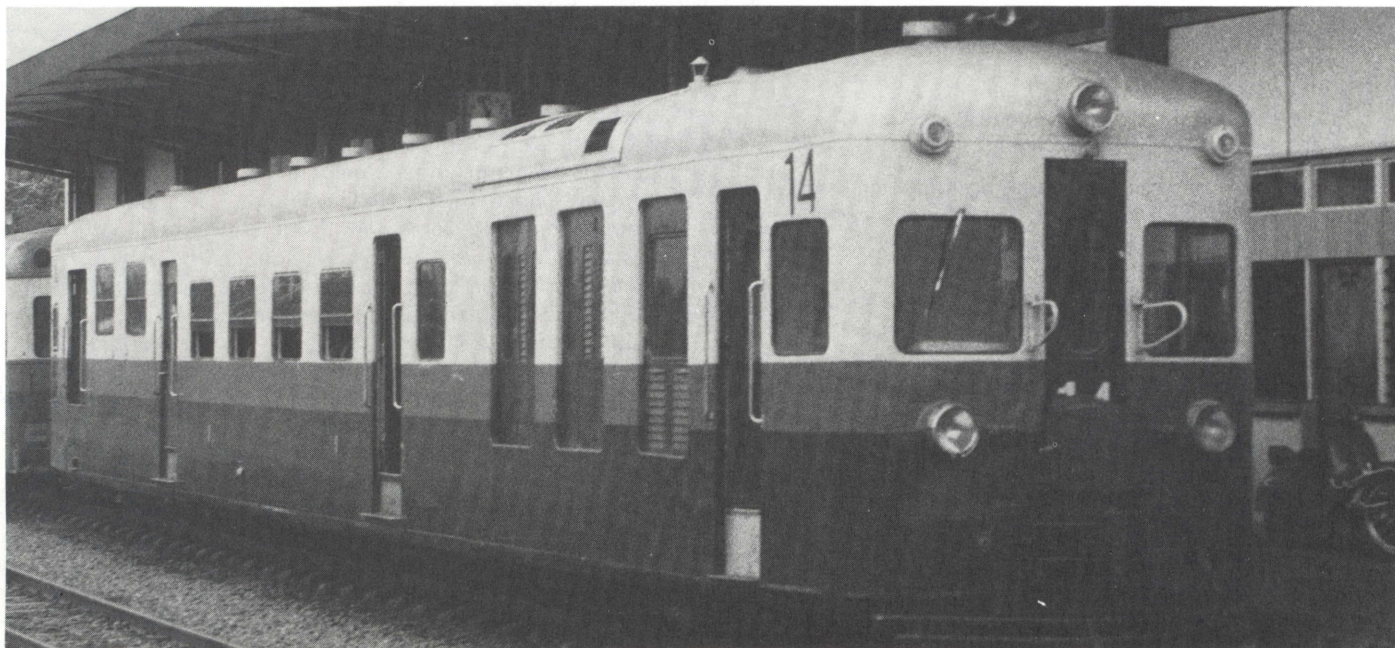
to lay the plans for the northward extension from Yaoundé; and it was only as the result of a press campaign that the decision was taken in 1930, to send out a party of railway experts to Cameroon and the Chad basin. It was led by Colonel Milhau, and its mission was to consider what ought to be done next. The mission remained in Africa till the end of 1932 and put in a report recommending that the railway system be extended northward. Soon afterwards came the economic crisis of 1930-33, and after this the Second World War. Once more the project had to go into cold storage. It was not till 1952 that the scheme for extending the railway as far as Chad came before the public. By then the Milhau report had been adapted and brought up-to-date and the project was known as the Douala-Chad—the first name given to the Transcameroon.

Successive champions of the scheme were Pialoux, Nicolas and Collorec; and it was under the aegis of the Cameroon government and the Chambers of Agriculture, Commerce and Industry that their efforts culminated in October 1958 in the formation of the Société Civile d'Etudes du Chemin de Fer Douala-Chad (SEDOT), the head of which was Paul Darnault, the Engineer-General.

SEDOT called in the help of specialist firms and it had before it the outline project from the Milhau report and economic studies compiled by the Planning Organisation SOGEP

(*) Secretary-General of the Transcameroon Railway Office.

At Yaoundé station.



(Société Générale d'Etudes et de Planification). From this material it submitted to the Cameroon government a complete file designed for use in seeking the necessary funds from friendly governments and potential lenders.

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New possibilities were opened up through the formation of the Common Market and the European Development Fund, and by the decision of the United States in 1961 to set up the Agency for International Development (A.I.D.) and give a new flexibility to their conditions for long-term lending. The Cameroon government was convinced of the exceptional possibilities of railway transport for economic expansion in the central part of the country and economic development in the north. It now had new doors on which it could knock.

A finance programme was eventually settled, with external aid contributed by the E.E.C., the United States and France. The work was to be carried out in two phases:

- First section: Yaoundé-Bélabo (296 km)
- Second section: Bélabo-Ngaoundéré (327 km).

Apart from the surveys and other work carried out by SEDOT before 1961 and the indirect help from the Cameroon government (by way of customs franchise, special tax conditions, expropriation costs, availability of land, requisitions, etc.) the total investment funds contributed up to the time of completion of the second section were divided as follows:

— E.E.C. (E.D.F. and E.I.B.) F-CFA	12 238.0 million
— U.S.A. (US-A.I.D.)	5 169.3 million
— FRANCE (F.A.C. and C.C.C.E.)	4 038.9 million
— GERMANY (K.F.W.)	1 088.7 million
— CAMEROON	3 691.6 million

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Apart from the surveys and planning work, the operation gave rise to the placing of nine contracts. These were for:

- infrastructure construction (2 contracts)
- supply of wood sleepers (2 contracts)
- supply of steel sleepers (1 contract)
- station buildings (2 contracts)
- telecommunications (2 contracts).

The construction of the infrastructure both for the first and for the second section, was by far the biggest contract, both in regard to the quantity of the work and the number of people engaged.

The number of people actually engaged on the second section was 2 600, of which 2 400 were Cameronian. A labour force such as this could not fail to raise welfare and social problems which had a very marked logistic effect. The unspecialised manpower was recruited locally and given a quick training as the work advanced. The specialised personnel—engine drivers, masons, office staff, welders and others—moved along with the work. The first concern was to provide housing and board for the personnel and their families. Camps were put up every 50 km, consisting of wood hutments with metal roofs, each of which accommodated about 500 people (work-people and their families). Each camp had a first-aid post, a steward's office and a regular supply of drinking water.

On the social side the outstanding achievement was the hospital built at Ngaoundal, which was initially built for the workers and their families and has become the hospital for the regional population within a radius of nearly 100 kilometers. Provision was also made for leisure occupations, including a number of football grounds, cinemas and other facilities.

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The first section was brought into operation in successive stages during 1968, and the station at Bélabo was opened to traffic in May 1969.

The results went far beyond the expectations recorded in the SEDOT preliminary surveys. All along the line there was a remarkable growth, both in passenger traffic and in timber-carrying. Between 1968-69 and 1972-73 the passenger traffic on the Transcameroon line (at that time only between Douala and Bélabo) rose from 120.9 to 145.2 million passenger-kilometers and the goods traffic rose from 186.5 to 310.8 million ton-km. In 1967 a sugar mill was set up at Mbandjock, using the savannah country suitable for the purpose and reasonably close to the railway.

For the second section, Bélabo-Ngaoundéré, the contractors kept within the stipulations of the plan and were slightly ahead of the time schedule. The terminus station at Ngaoundéré has been open to traffic since February 4, 1974. Even before this, however, complete goods trains with cargo for Ngaoundéré and beyond (northern Cameroon and Chad) were already using the line. Passenger trains running twice a week had a great success, both with private firms and with tourists and holidaymakers. The same applied to the traders in Ngaoundéré, who were able to save time and money by travelling at night.

These are only a few of the economic results of the extension of the railway from Yaoundé to Ngaoundéré. Another was the contact between the populations served, which is a factor of unity. This is all preliminary to the bauxite mining operation at Minim-Martap.

Since 1969, when the first section was completed and traffic could flow by rail through Bélabo, there has been a marked increase in the proportion of imports into and exports from Chad and the Central African Republic passing through Cameroon.

From the very beginnings of the Transcameroon project, access to this firm and assured highway of communication has always been one of the aspirations of the land-locked countries bordering Cameroon. For a long time, of course, the Transcameroon was known as Douala-Chad; and for the Central African Republic surveys have been made for a connection between Bangui and the Transcameroon with three possible variants—Bangui-Bélabo, Bangui-Yaoundé and Bangui-Nbalmayo. Chad, it seems, has already chosen to use a road which will take the traffic to Ngaoundéré, for which the route would lie through Tchollire-Moundou and for which surveys have been financed through the E.D.F. In Cameroon, too, road work has long been in progress to complete the road and rail artery between the north and the south.

The great Trans-African road project (Lagos-Mombassa) will pass through Cameroon, crossing the Transcameroon not far from the station at Ngaoundal.

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There is one fly in the ointment. Cameroon and its neighbours who depend on the Transcameroon will not be able to take full advantage of the big investment between Yaoundé and Ngaoundéré until the old portion between Douala and Yaoundé has been brought up to the same pitch as the newly-built line. It is 308 km in length and at present it is struggling rather ineffectively to deal with the expansion in its traffic. Its characteristics and equipment are old-fashioned, and the line is fast deteriorating under the increase in the number of trains and the higher axle-weights. The lenders who financed the Transcameroon, when they were considering the first section, already recognised and recommended that by the time the Transcameroon was complete the old line between Yaoundé and Douala should have characteristics as least as good as those of the new line.

Technical surveys for this purpose were commissioned by the cameronian government from the Transcameroon Railway Office entirely at its own expense. These have now been completed.

The economic analysis and profitability study was put in the hands of the companies O.C.C.R., Interg and Sofrerrail, with finance provided by the World Bank. The profitability study was made on the lines required by the World Bank, subdivided into estimates of the effect of modernisation on each of the three subsections (Douala-Edea, Edea-Otele and Otele-Yaoundé) as well as for the whole line.

The Cameroon government is armed with a full economic and technical dossier, with execution plans fully defined and worked out. Thus equipped it has already begun its approaches to other governments and finance organisations in quest of funds for what it already calls the third section of the Transcameroon.

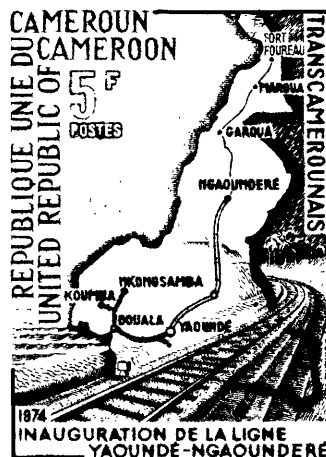
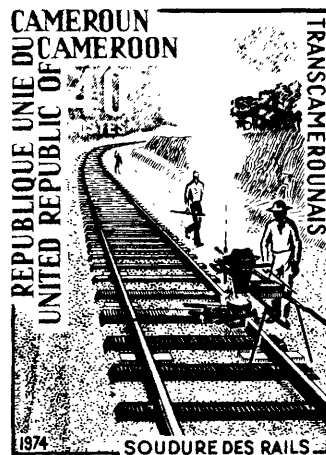
For this purpose a meeting was held from July 25 to August 1, 1974, for the specific purpose of finding finance for extensions in the port of Douala and the improvement of the Douala-Yaoundé line. Besides the Cameroon government, it was attended by representatives of the European Development Fund, the European Investment Bank, the World Bank, the french funds F.A.C. and C.C.C.E., the US-A.I.D., the Canadian International Development Agency, the corresponding german body (K.F.W.), Italy and others. The potential lenders set up a committee of experts, which recognised the validity of the Douala-Yaoundé project as a whole, and agreed to its being carried out in sections as the funds are made available in conformity with the programmes of the various lenders.

The first funds will come from french, german and canadian aid, supplemented by a contribution from the Cameroon government itself. As soon as these are available it is agreed that a start will be made on a first section of the work. This will consist of the main telecommunications system between Douala and Yaoundé and the relaying of the line between Otele and Yaoundé (49 km, including stations).

The meeting at the end of July can thus be regarded as the birthday party for the third section of the Transcameroon. The country can look forward to the reasonably early accomplishment of the task of relaying the line between Douala and Yaoundé, which is now so necessary and which will be of benefit not only to Cameroon's own economy, but also to that of the countries which are its friends and neighbours. ■

Luc TOWA FOTSO

THE TRANSCAMEROON CELEBRATED IN POSTAGE STAMPS



The Transcameroon Railway now links the country from north to south. Perhaps one day it may also provide a link from east to west. The completion in its present stage is a great event in Cameroon's development and in bringing its population closer together.

The occasion has been celebrated by the national Post and Telecommunications Office by a new issue of stamps, pictures of which are shown above. Collectors will get a further knowledge of the flora of Cameroon; and they will also be able, from their stamps, to follow the economic advance of the United Republic.

The Transgabon gets up steam

by M. UNGURAN (*)

Gabon produces timber, oil, uranium, manganese and also has a very important iron ore seam. The Transgabon railway will enable these resources to be brought into use, and it will also provide better penetration into the interior, most of which is covered with dense forests.

As far back as the beginning of the century, plans were under discussion for a road-and-rail highway to penetrate the heart of Equatorial Africa. These were in fact the beginnings of what is now the Transgabon railway project, but we do not need to go back so far to show how chequered has been the story of a project on a scale which has often scared away Gabon's financial backers.

The country has enormous economic potentialities and people are increasingly aware of the world scarcity of raw materials. This, however, is not the whole story; for the project is equally a necessity for the country's economy. The infrastructure will not only provide an offtake for various mineral resources, but it should also bring important changes in the distribution of population and thus facilitate an adequate administrative and health infrastructure.

These factors in favour of building the railway should outweigh any inconvenience arising from the scale of the investment required.

The story so far

The project for the Transgabon Railway has only a short history, and the Head of State, President Bongo, has had manifold difficulties, some of them almost insurmountable; but he has always been keen to see the project through, and it is only his persistent activity which has brought it to a successful conclusion. Long before he was born the Transgabon project had already been the subject of a battle of experts and politicians. This was not only on technical points, such as the gradients, track, width of the permanent way and the gauge to be used. Nor was it entirely about the estimated cost of the first section from Owendo to Booué which the government intends to construct so as to hasten the construction of other sections to Bélinga and Moanda by way of Franceville. There were disputes, too, about the economic profitability of the 330 km of track through the forest, mainly intended for carrying over a million tons of cargo annually to its seaward outlet.

The first project, set on foot by Foley Brothers, was intended to connect Owendo, south of Libreville, with Bélinga, which lies in the heart of the iron ore area in the north-western part of the country. Because of the disputes I have mentioned, this was superseded by a more modest project for a connection between Owendo and Booué, for which new surveys were made by Foley/Sofrerail, with the economic study in the hands of S.E.D.E.S. (Société d'Etudes Economiques et Sociales).

This might be thought to have been in reality a stimulus for operating the iron ore mines, the concession for which had been disadvised by the World Bank, with the suggestion that a system of roads be constructed for the offtake of timber, leaving the railway project till some years later. In February 1973, after the World Bank had the project under consideration for several years, it withdrew its promise of finance; but Gabon was still keen on the railway project and decided to accept the proposal of the European Development Fund, which would have the effect of reducing the cost without compromising the future of the mines. At the same time work was put in hand, with the use of bank credit, in building what has come to be known as the "reception infrastructure". This consists of the administrative building of the Transgabon Railway Office, which had been formed in 1972; and a housing scheme and a road from the future station at Owendo to the new port which has just been brought into operation in 1974.

The fact that Gabon was anxious to get on with the job is explained by the existence of a Railway Investment Fund, which had been set up in 1969, and fed from taxes on wages, drinks, tobacco and similar sources. It is easy to see why a country which had been working for four years to set up such a reserve should want to see its project carried into execution as quickly as possible.

The tenders for the 10 operations of which the railway will consist were therefore to be opened in July-August 1974, and the contracts will probably be awarded during the final quarter of this year.

Economic advantages

This will be no more than the beginning of the work in two distinct fields: construction and finance. But before taking a look at the future, we must ask why a railway is needed and, more especially, why this first section of it?

Help came from the interest in the project expressed by the European Development Fund. On May 28, 1974 its committee assented to the project, and shortly afterwards the E.E.C. Commission took a favourable financing decision.

If we consider the mineral wealth of the Ogooué basin, it is quite easy to see that they could not be adequately exploited by a road system which could not carry traffic of several million tons each year. The iron ore reserves at Mékambo/Bélinga would suffice for an annual production of 40 m tons for over 50 years, consisting of high-grade ore of up to 64% ferric content.

The manganese mine at Moanda in the south-east of the country already produces 2 m tons of first-class ore every year. Unfortunately there is no suitable infrastructure, and the production has to be evacuated first by 75 km of cable railway, then by a privately-owned railway and afterwards by Congo-Océan, which is the link between Brazzaville and Pointe-Noire. Here again, the reserves are sufficient to guarantee operations for 50 years or longer. So there can be no doubt that Gabon should have a railway for heavy traffic if it is to get these ores to market. Only a passing reference is necessary to the mine at Mounana near Moanda, because the traffic it will occasion is comparatively small. The question remains, why should the railway be built stop short at Booué?

We found that conditions in the iron ore market were not good, so that it was not possible to forecast the date when the

(*) Economist in the Transgabon Railway Office (O.C.T.R.A.).

Bélinga mine would be brought into operation. The Gabon government therefore took the view that the building of a first section of the railway would be an adequate inducement to secure the opening of the mine. Whether or not this was a winning bet, time alone will show. Meanwhile it was necessary to make it clear that the first section by itself would be viable. Here again, there was a conflict—often a very vehement one—between the experts on essential points, such as the density of exploitable timber in the Gabon forest (between 6 and 13 tons per hectare); but underlying this quarrel was the problem of promoting different species of timber.

In Gabon all types of timber are classed as miscellaneous, except for okoumé. This is because the latter is a timber which floats and which peels easily; and until the oil wells came into production, it was Gabon's chief economic resource. Yet the forests are extremely rich in woodworking timber, and in species which peel easily. This is another point on which the European Community provided help not only to Gabon, but to the other principal timber producers—the Ivory Coast, Cameroon and Congo.

An operation is currently in progress aimed to familiarise importers with the various species of timber which have the qualities needed for industrial use.

There was therefore a good deal of controversy about the offtake of exploitable timber, but in time the views of the optimists gained the upper hand. The prices of timber rose in parallel with the demand, and there is now a definite tendency towards diversification.

On the other hand, the concluding months of 1973 were to deal a severe blow to the railway project, and indeed to Gabon itself. The astonishing rise in oil prices accentuated the world inflation and it was evident that building costs were likely to increase rapidly. The immediate problem in considering the economic profitability of the first section of the railway is the balance of timing between the growth in income from exported products and the cost of imported goods and services.

These are the two unknowns in the equation; and since the relationship between them was uncertain, problems had to be put to the computer and a great number of possibilities brought into consideration. In the position as it now exists, the building of the first section is found to be largely justified.

This decision having been taken, Gabon will be faced with

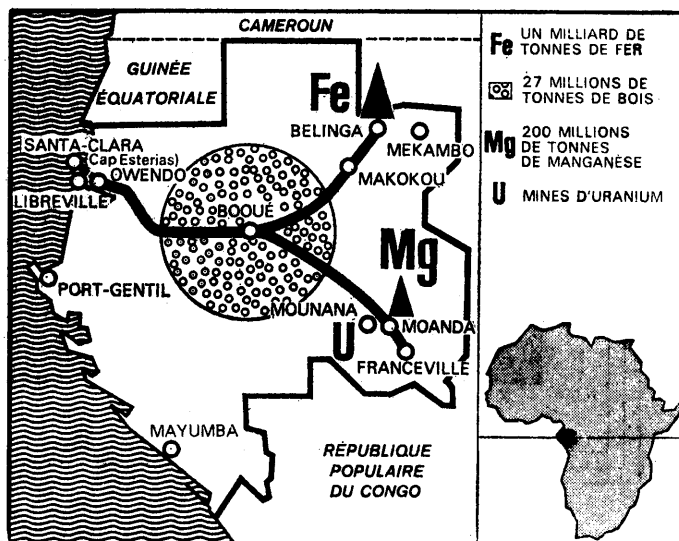
the two difficulties already mentioned—finance and the work of construction.

Finance and manpower

At present the finance is based on multilateral aid (E.D.F., B.A.D.), bilateral aid (US-A.I.D., F.A.C., R.F.A., Italy and others), export credits (EXIMBANK, COFACE, Canadian S.E.E. and others) and a participation from Gabon itself of F-CFA 15 000 m, which is equivalent to half the external aid and therefore a third of the total investment at 1972 values.

With the present continued inflation Gabon will certainly be obliged to increase its participation, but this will probably be facilitated through the increase in its income from oil. It also seems likely that a serious problem will arise for the actual work of construction, owing to the shortage of manpower. It may be necessary to look for workers from other countries, and the government is seeking to negotiate conventions with other african countries through which immigrant workers will be given various advantages.

These two factors are both matters of concern, but it can be estimated that the first section will come into operation in 1979.



The Transgabon railway consists of:

First section. — Libreville-Owendo-Booué: 332 km (210 miles)

- Approximate cost: 45 000 m francs CFA, or about \$140 m.
- Timber port at Owendo.
- Eight stations along the line.
- Three million passenger/km per year.
- 1 200 000 more tons of wood a year (double present production).

- Opening up three million hectares to the timber industry.
- 30 000 tons of fuel and 20 000 tons of goods transported annually.
- Work due to start at the end of 1974.
- Work due to take five years.

Second section. — Booué-Moanda-Franceville: 375 km (234 miles)

- One and a half million more tons of

Moanda manganese moved out of Libreville per year.

- Opening up of the third forestry area (rich variety of wood).

Third section. — Booué-Bélinga: 229 km (144 miles)

- Libreville-Santa Clara mineral port (cape Estéria).
- Exploitation of iron ore seams at Bélinga: 20-25 million tons a year.

To ensure a sufficient offtake of timber from the forest to the sea, the project also includes 400 km of roads and a port for round timber at Owendo. These are to be completed in good time for the timber operation to get going in the initial years at the adequate rate of a million tons per annum.

The future

Before the railway gets as far as Booué (which, it should be mentioned, may become an important tourist centre), the government will have to take a decision about the other sections.

For Booué-Moanda-Franceville, the plans are at a very advanced stage. They have already covered the route, the soil studies, the traffic estimates and the value to the community of building these 300 km of additional track. Even if the traffic through the Congo is taken as remaining at the same level as in the past few years, it would be to the country's advantage to make this investment, the cost of which will be of the same order of magnitude as Owendo-Booué.

For the Booué-Bélinga branch, the plans and surveys are also in an advanced state, but will need bringing up to date. The completion of the two projects in about 10 years time will give Gabon a railway from the coast with two main branches and a total of some 950 km of track. This will necessitate building a wharf at Libreville to handle the big ore carriers. Once the Owendo-Booué line comes into operation, the prospects ahead for Gabon seem extremely favourable.

Social and economic impact

While the profits the railway will bring are a welcome influence in a developing country, there are others to be expected, including changes in the face of the countryside and a strengthening of national unity. By organising economic life around this central communications artery, the government expects centres of activity to spring up progressively around the stopping places, consisting of small production units, various forms of service trade and transport, with others to follow.

The rural population of the region is likely to gravitate towards the railway, and it will thus be possible to set up social equipment to an extent that is not feasible when the population is very dispersed.

The strengthening of national unity will be considerable. The country is at present divided into comparatively isolated centres of economic activity. The rainy season lasts for six months and the roads are often impracticable, up-country transport is very difficult and the victualling of the capital is highly precarious. The only mode of transport which can be used in the rainy season is the aircraft.

This is a serious state of things politically and it is one to which the railway will be an ideal solution. This explains the determination of the Head of State to construct a fast and reliable transport system.

On the political side, a problem to be emphasised is that of the manganese production. This comes entirely from Gabon, but the whole of it is now evacuated through foreign countries.

The railway can thus be seen as a progress factor, both on the economic and social side and as an instrument of national unity and independence. ■

M. UNGURAN

Nigerian railways: waiting for modernisation

The Nigerian rail network, one of the biggest in Africa with 3 500 km (2 100 miles) of track, is no longer adequate for the country's needs. Railway construction in Nigeria began in 1898 and the network now poses a problem that might be unexpected in a developing country's infrastructure: it is out of date.

The archaic track width (1.07 m) limits maximum speed to about 65 km/h (40 mph), and trains are further slowed by the many curves (1 600 at more than 4°); the journey from Lagos to Kano, 1 120 km (700 miles) to the north, sometimes takes 30 hours by train.

Run by the Nigerian Railway Corporation, the railway has made considerable financial losses over the past 10 years. And under the current national development plan, far more funds are available for the maintenance and reconstruction of the roads than for the reconstitution of the rail system.

The deterioration of the network can be attributed to several factors. The rolling stock is inadequate and in short supply, despite the introduction of diesel engines. High interest rates make it difficult to raise capital, and fares were frozen for eight years. Agricultural rail freight has considerably diminished and road transport is a strong competitor. The civil war involved still further problems.

The most important of these factors is the reduction of agricultural freight transport, which used to bring in 85% of the railways' revenues, 50% coming from the transport of export products such as cotton and groundnuts. The drought in the north of Nigeria is only partly responsible for these cutbacks. Agricultural rail freight in 1971-72 was little more than a third of what it was in 1963-64, as the following figures show:

Agricultural exports by rail (tons)

1958-59	849 500
1963-64	880 900
1968-69	767 467
1970-71	400 000
1971-72	350 000

Yet the railways have been closely associated with Nigeria's economic development from the start. Their initial role of opening up the interior made it possible to exploit such natural resources as coal and tin as well as to transport agricultural exports from the north to the ports of the south. This function remains valid, especially with the new export possibilities now offered to the Nigerian coal and steel industries and with the introduction in West Africa of the standardised container system, which should greatly improve the efficiency of freight transport.

The responsible ministries seem well aware of the importance of the rail network and of the economic advantage of rail over road freight. Studies recently completed should lay down the guidelines for a considerably improved rail system under the third national development plan. ■

The E.E.C. at work on the Trans-Equatorial

The Trans-Equatorial Highway is a system of communication some 5 000 km in length, and of interest to four Associated countries—the Peoples' Republic of the Congo (1), Cameroon, the Central African Republic and Chad.

It falls into five parts :

- 1 The port of Pointe-Noire (Congo) which is its seaward outlet.
- 2 The Congo-Océan Railway (C.F.C.O.), which links Pointe-Noire with Brazzaville (Congo) which takes the place of the river route in this section, because of the Congo rapids. The railway has a northern branch to M'Binda, which is at present used for the offtake of manganese from Gabon.

(1) The Director General of the Trans-Congolaise Communications Agency (A.T.C.), gave a substantial account of this organisation (covering its rules, its communications systems, its regional character and its future) in *Association News*, No. 13 (May-June 1972).

3 The port of Brazzaville (Congo), the re-shipment point between river and railway transport.

4 The river transport network, consisting of:

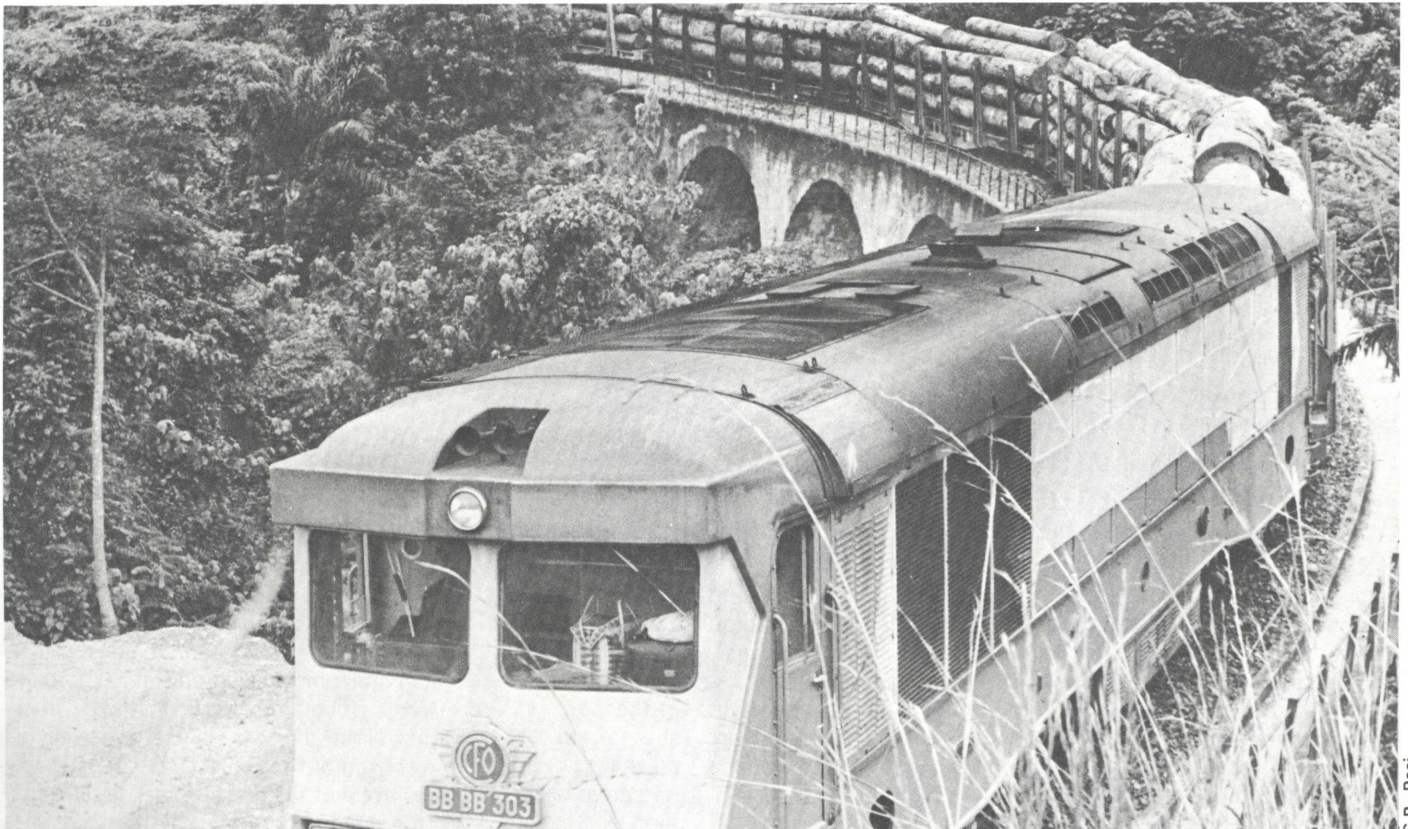
— the Congo river and its tributaries of the Congo basin, a production area for coffee, cocoa and palm oil;

— the Sangha and the northward extension (the Ngoka into Cameroon and the Upper Sangha into the Central African Republic) which serve for evacuating timber from south-east Cameroon and south-west Central Africa;

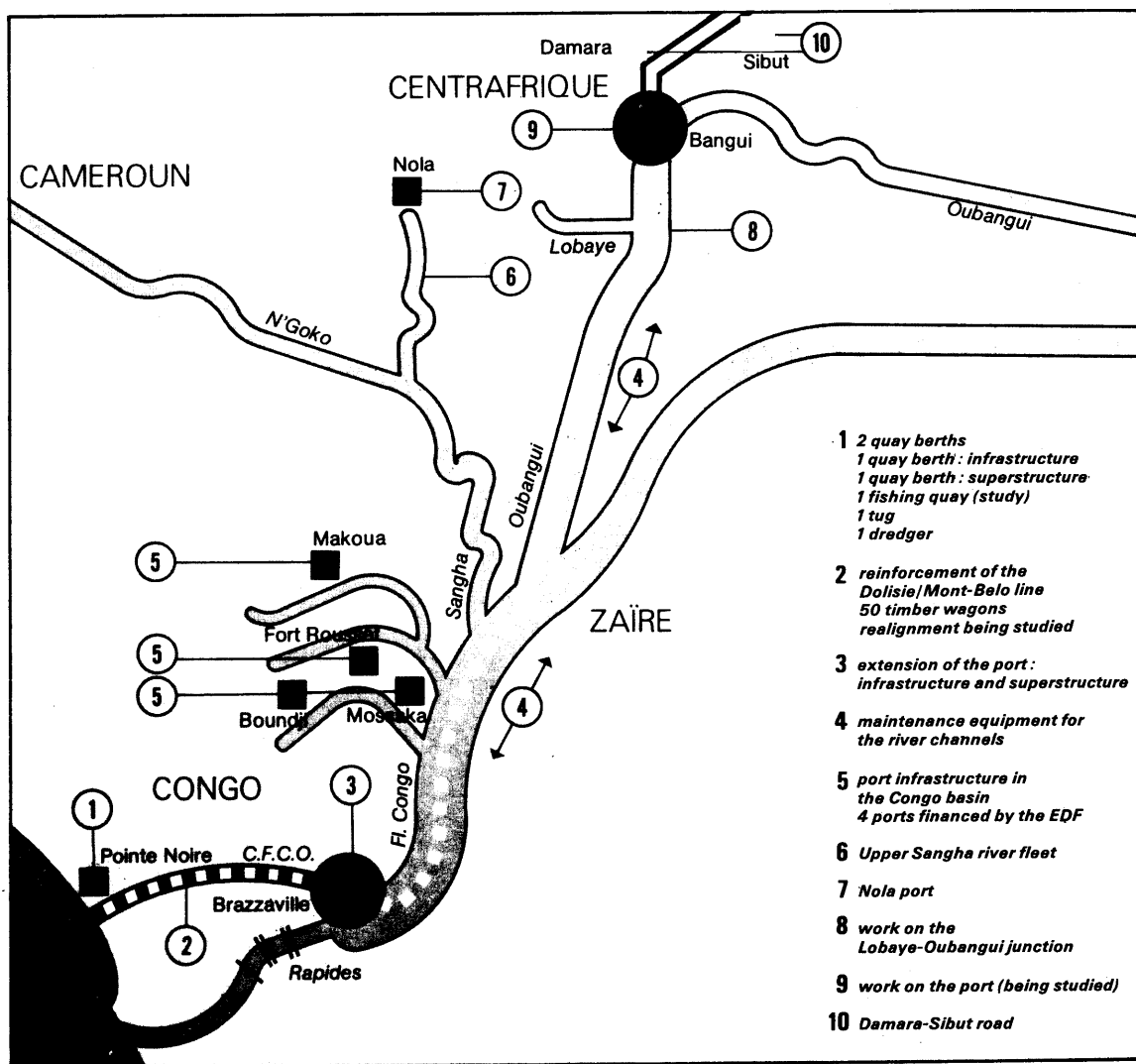
— the Ubangui linking Bangui with Brazzaville and its tributary, the Lobaye, which serves a forestry area in Central Africa.

5 The road system in Central Africa and Chad serving the cotton growing in Central Africa (Bossembélé and Bambari) and in Chad (Moundou and Sahr).

Timber transport Congo-Océan.



S. B. Paci



The Trans-equatorial.

For all the four states concerned, this system is extremely important. In 1970, the Trans-Equatorial carried exports of:

- 1 275 000 tons for Congo (100% of the total);
- 260 000 tons for Central Africa (98% of the total), the remainder transiting northern Cameroon);
- 75 000 tons for Chad (35% of the total, while 30% goes out via Cameroon and 35% via Nigeria);
- 30 000 tons from south-eastern Cameroon.

In addition, 1 510 000 tons of manganese from southern Gabon used a small section of the C.F.C.O. and the port of Pointe-Noire. Even without this part of the traffic, the Trans-Equatorial carried 1 640 000 tons of merchandise.

At the request of the Associated countries, and in line with their communications development policy, the European Community provided finance for improvements in the system from the 1st, 2nd and 3rd European Development Fund, and jointly with other aid sources.

The total Community finance solely concerned with the Trans-Equatorial Highway in the Central African Republic and Congo, had amounted by the end of 1973 to U.A. 38 977 000. This was divided as follows:

Non-repayable aid	E.D.F. I	U.A.	9 230 000
Non-repayable aid	E.D.F. II		5 020 000
Non-repayable aid	E.D.F. III		22 675 000
Loans on special terms	E.D.F. III		2 052 000

The map shows the detail of these financings and where the corresponding work was undertaken.

In addition, the E.D.F. departments are at present studying various other Central African and Congo projects, the execution of which would add to the previous interventions. These include: improvements in the port of Bangui; superstructure in the port of Pointe-Noire (following the financing of infrastructure in 1972); Pointe-Noire port extensions, especially as a fishing port; and the re-laying of the C.F.C.O. permanent way on a joint basis with local users of the line and the World Bank, the UN Development Programme and the F.A.C. ■

Zaire railways

by M. KANYAMA (*)

Zaire is characterised by its enormous area, covering 2 343 000 sq.km, which is 8% of the area of the African continent and twice that of the European Common Market. Zaire has 9 400 km of land frontiers with ten different countries, but its ocean coastline is only 45 km.

The rich mining area of Shaba is 2 800 km from the only major seaport at Matadi, which lies on the left bank of the river Zaire, 138 km from the mouth of the river, which is Zaire's access to the Atlantic. These distances give a first idea of the potential importance of transport in the economy of the country.

The railways of Zaire are all single-track lines. Starting from the Atlantic (see map) they consist of:

① **The Mayumbe line (C.F.M.)** from Boma to Tshela, on the right bank of the Zaire estuary, consisting of 136 km of narrow-gauge line (0.615 m).

This line is now liable to become much more active because of developments in the region. These include the laying of a new railway from Matadi to Banana; the building of the new hydro-electric power station at Inga; the project for industrial development at Banana, including an aluminium works; and the existence of an important bauxite seam at Sumbi (80 km east of Lukula). It will be necessary to review the equipment of the line, and especially to re-lay it in 3 ft. 6 inch (1.067 m) gauge.

② **The Matadi-Kinshasa line (C.F.M.K.)**, known as the "lungs of Zaire", linking the estuary of the river with the river transport system and thence with the other railway systems. It consists of 366 km of 3 ft. 6 inch track.

The C.F.M.K. links the port of Matadi with Kinshasa, through which all goods bound for or from the interior must necessarily pass along the Zaire National Route, which is being more and more used. The equipment of the line will have to be improved to deal with traffic requirements, estimated as rising to 2 485 000 tons by 1980.

The traffic is already increasing, owing to the setting up of the national cement works at Kimpese (capacity of 300 000 tons p.a.), the impending entry into production of the steel-works at Maluku (capacity 250 000 tons p.a.) and the development of the Kinshasa industrial areas.

ONATRA has drawn up an equipment programme for 1974-80, with an estimated total cost of 50 million Zaire, including material on order for the railways, waterways and ports, besides the material included in outstanding surveys.

The provision for the railways includes the gradual renewal of locomotives, the acquisition of new coaches (140 of these are now in course of delivery) and rail-car sets.

In parallel with this, steps will be taken for the better adaptation of the equipment to operational requirements. These include:

- track renewals (30 km p.a.) and strengthening of bridges (raising the capacity load from 16.5 to 18 tons per axle);
- doubling the track on the Lemba-N'dolo and Kwilu-Ngongo Mweke sections, to provide greater flexibility and operational security;
- transfer to Kinshasa of the locomotive overhaul and repair shops at Mbanza-Ngungu;
- better equipment for the coach repair shops at Kinshasa;
- improved telecommunications;
- plans for electrification of the system.

This up-grading of the line equipment is indispensable, because of the traffic outlook resulting from the execution of two big projects. These are:

- laying out a deep-water seaport in the neighbourhood of Banana, and linking it with Matadi via Boma by means of a 150 km railway, the construction of which was scheduled to begin in September 1974 for completion in 5 years;
- in the longer term, the construction of a railway from Ilebo to Kinshasa, interconnecting the K.D.L. and C.F.M.K. systems. This will take the northern and more difficult route, approximately parallel to the Kasai and Zaire rivers via Bandundu.

The laying out of an ocean port at Banana is called for on account of the inaccessibility to modern high tonnage vessels of the two seaports at Matadi and Boma. Moreover, the port of Matadi lies hard up against steep mountains which make its extension impossible. This is becoming an increasing handicap for a progressive country such as Zaire, which is being industrialised—an industrial complex is also foreshadowed at Banana—and possesses enormous mineral and forest resources.

The railway from Ilebo to Kinshasa will do away with the inconveniences of the present system of river transport, which means expensive trans-shipments and slow travel. The junction line between the C.F.M.K. and K.D.L. systems will enable them to be more productive; and this, linked with the expected increase in traffic, will lower their costs. A main factor in this will be the better utilisation of locomotives and rolling stock owing to the continuity of the haul for long-distance transport.

③ **The K.D.L. Railway (Kinshasa-Dilolo-Lubumbashi)**. This is the main communication system linking Zaire with southern Africa by the railway from Ilebo (the terminus of heavy navigation on the Zaire and Kasai rivers) with Sakania on the zambian frontier, a distance of 1 820 km. The line has two additional branches:

- Tenke-Dilolo (523 km) which takes the system to the Angola frontier, where it connects with the Benguela Railway to the Atlantic seaport at Lobito;

(*) Director General of ONATRA.

(Extracts from a major report by Mr. Kanyama on "Land transport in Zaire").

Comparison of Zaïre railway traffic with other african systems (1972)

	Lines in operation (km)	Passengers		Goods Traffic	
		Number	Passenger - km (million)	Tons	Ton-km (million)
ZAIRE					
C.F.M.K.	404	1 257 749	154	1 622 136	474
C.F.M.	137	79 710	5.1	62 953	4.9
K.D.L.	2 642	1 334 681	284	4 840 439	1 017
C.F.L.	1 085	343 611	57	317 860	144
C.V.Z.	842	84 469	—	67 263	—
Total	5 110	3 100 220	500.1 (2)	6 910 651	2 539.9 (2)
SENEGAL	1 034	2 760 000	241.3	1 910 000	338.3
TOGO	442	1 373 000	73	64 000	8.5
O.C.D.N. (Dahomey-Niger)	579	1 290 917	80	280 996	111
R.A.N. (Abidjan-Niger)	1 173	2 595 000	777	872 000	480
REGIFERCAM (Cameroon)(1)	839	1 879 000	221	1 113 000	307
A.T.C. (C.F.C.O. and C.O.M.I.L.O.G.)	720	1 276 000	156	3 737 000	898
MALAGASY	860	2 695 000	192	897 000	258
FRANCO-ETHIOPIAN (1)	701	361 100	76	397 800	212.6

(1) Figures for July 1971 through June 1972

(2) Excluding C.V.Z.

— Kamina-Kabalo, connecting with the Great Lakes system to Kalemia (1 161 km) on Lake Tanganyika, across which it connects with East African Railways across Tanzania to Dar-es-Salaam on the Indian Ocean.

The K.D.L. Railway is the vital element in Zaïre surface transport, making the country the turntable of Central Africa, assisting in the economic expansion of Zaïre itself and providing maritime outlets for the country and its neighbours.

The junction railway between Ilebo and Kinshasa will add to the importance of the railway system and improve its productivity.

The combined operation of a junction between the K.D.L. and C.F.M.K. systems, and the continuation of the latter from Matadi to the great new port of Banana will make the National Route the main artery for Zaïre rail transport.

④ **The Great Lakes Railway (C.F.L.),** which has been under the management of K.D.L. since January 1974. It consists of two separate sections:

— Kisangani-Ubundu, a distance of 125 km laid in metre-gauge line, bypassing the rapids which prevent navigation on this part of the Zaïre river (known as Lualaba in its upper course);

— Kindu-Kabalo-Kalémia, which takes the traffic on 1.067 metres gauge (3 ft.6 in) from the upper end of the navigable reaches of Lualaba as far as Lake Tanganyika, across which it connects with Tanzania and the port of Dar-es-Salaam.

It does not seem that the present goods traffic will expand to any great extent in the early future.

Improvement in the state of the permanent way, including both renewals and strengthening, has already been begun and should be continued, especially on the Kisangani-Ubundu section.

The laying of a railway between Ubundu and Kindu has recently been put under survey.

In the immediate future, the management of C.F.L. operations

by K.D.L. will improve the profitability of this line of low traffic density, and reduce the costs of transport.

⑤ **The local lines in Zaïre (C.V.Z.),** the starting point of which is Aketi, the terminus on the Itimburi river for heavy navigation. The 842 km of track is laid with a gauge of 0.60 m. It serves the Uele region as far as Mungbere, with branches to Bondo and another to Titule.

The C.V.Z. serves a very big region, the economic development of which is expected to continue under the influence of the current extensions in coffee plantations, the World Bank plan for the development of cotton growing, and the projected iron ore mine at Isiro. These factors suggest a further growth in the railway traffic in the years ahead.

With the completion of the railway complex at Bumba, scheduled for the second half of 1974, and the enlargement of the port to give it a 200-metre length of quay, the extension of the Aketi line to Bumba will improve the facilities for handling goods, and so enable C.V.Z. to provide further help in economic expansion, which will bring it a recovery in its traffic.

⑥ **Comparison of Zaïre railway traffic with other systems in French-speaking Africa**

The principal points of comparison, showing the conditions in 1972 are given in the table above.

By way of conclusion, it is interesting to compare the activity of the Zaïre railways with others in Africa.

These figures give a general view of the importance of rail transport in countries in which, of course, the economic backgrounds are not identical.

They make it clear that the railway, besides its primary work of facilitating the commercialisation of the nation's wealth, is also the indispensable transport factor for the economy of any country. In Zaïre, as in other countries, the modernisation of its equipment and the construction of new lines will give it a new lease of life. ■

M. KANYAMA

The Tanzam⁽¹⁾: a major project takes shape

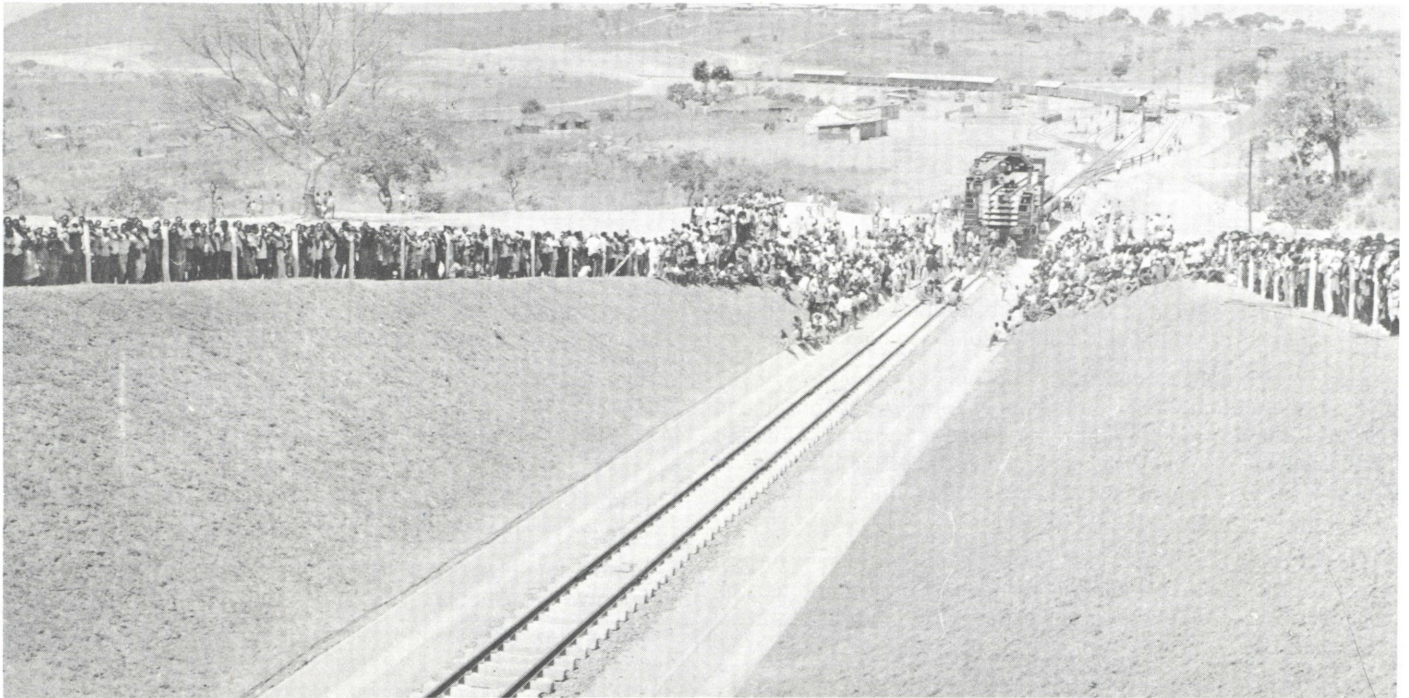
Within a few years, Tanzania and Zambia will be linked by rail. The Tanzam is known as the «railway of friendship» and will be the longest railway in Africa.

The Tanzania-Zambia Railway Project involves the construction and equipping of an 1 860 kilometre (1 162 mile) railway, linking the town of Kapiri Mposhi in Zambia with the harbour of Dar-es-Salaam in Tanzania. Kabwe is already connected by rail to Kapiri Mposhi 60 kilometres away.

dream. In the field of communications, landlocked Zambia had been in the unenviable position of having to depend for its main links with the outside world on ports located in territories ruled by hostile regimes.

With the growing co-operation between Tanzania and Zambia, links through Tanzania became the most obvious and logical answer to the problem.

A pipeline was built from Dar-es-Salaam to Ndola, Zambia, to bring in vitally required petroleum products.



Zambian Information Services

Inaugurating a section of line.

The construction of the railway is the largest single project ever to be undertaken jointly by Zambia and Tanzania. It is also reputed to be the largest single economic assistance project ever financed by the Government of the Peoples' Republic of China.

Its completion will signify the realisation of a century old

Almost simultaneously with this, the Great North Road was improved and a jointly owned company, Zambia-Tanzania Road Services Limited, was established for the sole purpose of moving Zambia's import and export traffic.

The success of these two projects further strengthened the determination to develop communication links between Tanzania and Zambia on a more permanent basis through the construction of a railway.

(1) From the publication "Kabwe" (Zambia information services).



Zambian Information Services

Many bridges and major works were needed for crossing mountainous country in Tanzania.

The Peoples' Republic of China responded favourably to a joint request by Tanzania and Zambia for assistance.

By an agreement signed in Peking on 5th September, 1967 China undertook to the Governments of Zambia and Tanzania to provide an interest free loan for the construction and equipping of the railway, to carry out preliminary investigations and to assist in training technical personnel for the construction, operation and maintenance of the railway.

This was followed by the signing in Dar-es-Salaam on 8th April, 1968 of protocols relating to the loan, survey and design, basic technical principles and despatch of chinese technical personnel.

Soon after the signing of the protocols the chinese survey and design technicians embarked on the preliminary survey. This consisted of field investigations and extensive reconnaissance for the purpose of locating the most economical route, by judicious selection of route length, gradient sizes and lengths of bridges, tunnels and embankments.

The investigation also took into account the patterns of existing or potential populations and natural resources in those areas through which the line would traverse, with the object of making the railway most beneficial to their development.

Simultaneously with these field investigations the other part of the design and survey work was being carried out—research

on the gauge to be used, design production and supply of plant, equipment, materials, locomotives, rolling stock and buildings.

All this was completed in a record period of less than two years.

The project covers construction and equipping of 1 859 kilometres main line of a 1.067 meter gauge railway from Dar-es-Salaam to Kapiri Mposhi where it will join the existing Zambia Railways system which is also of the same gauge.

Of the total length 970 km are located in Tanzania and 890 km within Zambia.

The major engineering works include 88 810 000 cubic metres of earth works, 2 197 culverts with a total line length of 39 600 metres, 300 bridges with a total length of 14 250 metres, 21 tunnels aggregating 8 911 metres, 1 200 000 cubic metres of ballasting and various buildings with floor space of 320 000 square metres.

The longest bridge is about 427 metres and the highest stands at 49 metres. The longest tunnel is 817 metres. The maximum ruling gradient is 2% (or 20 in one thousand) and the minimum radius of curves is 200 metres. The railway is built in five sections, each distinguishable from a variety of geographical and geological factors, which in turn effect the engineering characteristics.

The most difficult part of the route is the section within Tanzania where the railway ascends the Mufindi escarpment

on to the Southern Highlands. Because of the high undulating hills, deep valleys and gorges, volcanic or slushy soils, the section embraces, within 15 kilometres, a concentration of major engineering works such as earthworks, viaducts, culverts, tunnels and bridges to an extent of nearly 30% of those for the whole railway.

To meet the demands of traffic, 147 railway stations—with ancillary facilities such as workshops, receiving and dispatching sidings, buildings for passenger and freight traffic, water and power supply stations, signalling facilities as well as houses for staff—are being constructed along the line.

The initial carrying capacity is planned at 4.32 million tonnes per annum at the start but is designed to be developed to 7.04 million.

Main line traffic will be moved by diesel hydraulic locomotives of 2 000 h.p. continuous rating with a designed average speed of not less than 90 k.p.h. Shunting services will be by 1 000 h.p. diesel hydraulic locomotives with a designed speed of 50 k.p.h.

Initially the number of locomotives is expected to be 102 whereas rolling stock will consist of about 2 100 open and covered wagons and 100 passenger coaches.

Although the railway is designed to withstand higher capacities, the estimated running capacity of the line is 9 pairs of trains a day eventually increasing to 19.

Regular passenger services will include an express service between Dar-es-Salaam and Kapiri Mposhi. The major locomotives and rolling stock repair workshops will be situated at Dar-es-Salaam and Mpika.

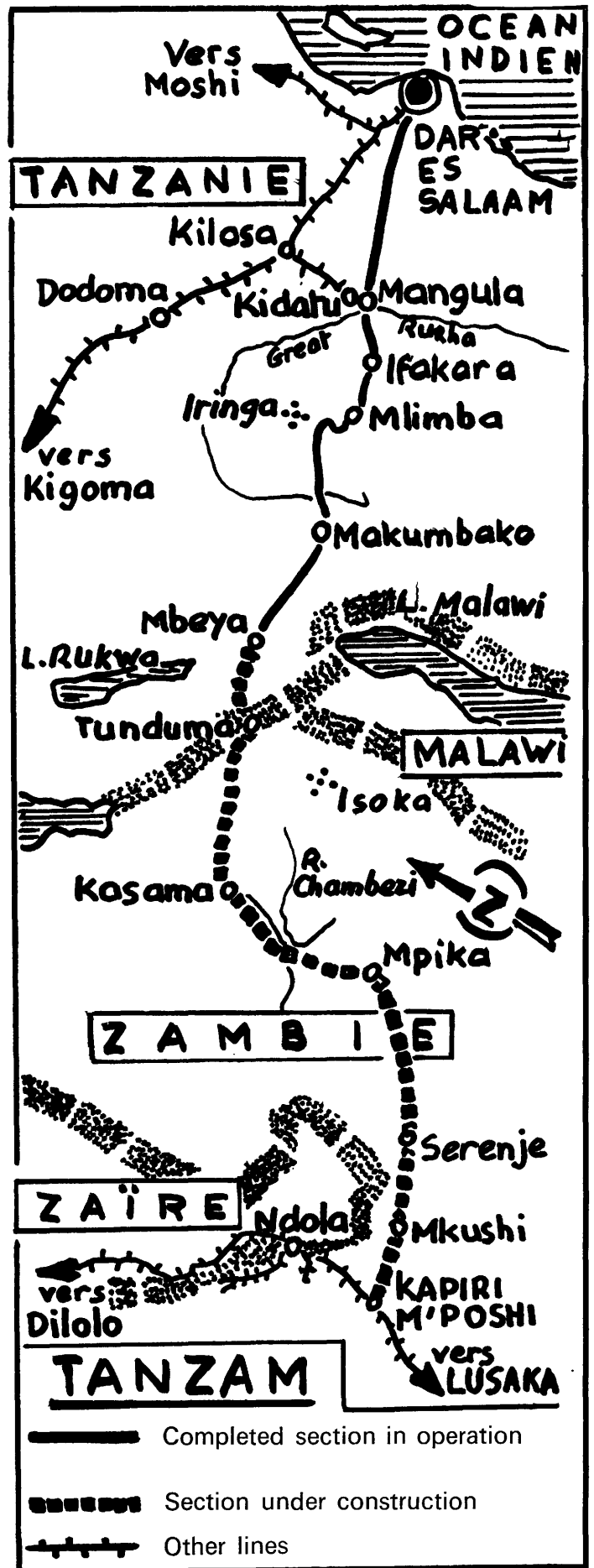
Of the estimated total cost of the project slightly less than one half is for import content and technical services, and the remainder is for local costs. The latter relate to the employment of local labour, the cost of local transport and purchase of local materials. Because of the magnitude of this project, these expenses are very high and would have considerably strained the economies of the two recipient countries.

The Chinese Government therefore agreed, as part of the loan, to enter into Commodity Credit Agreements under which China is to advance to the recipient countries various chinese commodities and the local sales proceeds of these commodities are to be used to defray these local costs.

As a result of this railway Zambia will have a reliable alternative route leading to the outside world which, in comparison with any existing outlets, will be competitive in terms of costs and efficiency. The export and import trade of Zambia will be placed on a sound footing.

The railway will also open new opportunities for agricultural, and industrial settlements and development in the Central and Northern Provinces of Zambia.

According to the Agreements, the construction of the Tanzania-Zambia Railway as well as all ancillary works and installations required for the initial operation is to be completed by 31st December, 1977, but judging from the progress made it is reasonable to expect that the work may be completed well in advance of schedule. ■



Mining railways

The mining railways in Africa are of recent construction and their economic and industrial potential is considerable because of the volume of traffic they carry and the high technical level of their equipment.

Three such private railways operate a total 971 km of line, using 52 locomotives and 1 941 trucks. They employ 2 800 workers and their traffic in 1972 was over 15.8 m. tons, and 6 800 m. ton-km. These orders of magnitude are materially higher than those of the public railway systems. The total investment to date, at the end of 1973, amounted to F-CFA 37 000 m.

The MIFERMA Railway came into operation in April 1963 and figures among the mining railways on the international scale. It carried 9.6 m. tons, and 6.100 m. ton-km in 1972. The total investment up to the end of 1971 was about \$65 m., of which, \$44 m. went for infrastructure and permanent way, \$12 m. for rolling stock and \$19 m. for workshops, buildings and telecommunications. To this must be added a further F-CFA 2 500 million, laid out in 1973 for another 11 locomotives and 130 trucks, so as to carry a 1974 traffic of 11.4 m. tons. The MIFERMA trains are made up of 130 trucks, carrying over 14 000 tons of iron ore (gross weight 18 500 tons). They are among the longest and heaviest rail convoys in the world.

The COMILOG Railway came into operation in 1962, and is linked with the C.F.C.O. at km 285, after taking a difficult course at a mean altitude of 600 meters. The 1972 traffic was 530 m. ton-km carrying 1.87 m. tons. The total investment has been F-CFA 14 000 m., of which the infrastructure and permanent way accounted for F-CFA 9 600 m., locomotives and

trucks for F-CFA 2 500 m. This was to provide for the annual haulage of 2 m. tons, which is looked upon as the threshold of saturation and has now almost been reached. An investment programme is in progress to bring the capacity to 2.3 m. tons. The offtake of additional tonnage is linked with the connection of the COMILOG with the terminus at Booué of the first section of the Trans-Gabon Railway.

The COTOMIB Railway has been nationalised, and in 1974 it ceased to be a privately-owned system. In 1972, it carried 4 390 000 tons of unprocessed phosphate rock to the washing plant at Kpeme, an distance of 34 km. Up to 1973, the total investment was over F-CFA 1 500 m., of which F-CFA 500 m. was the additional investment to prolong the track to the new mine at Kpogamé, which came into production in 1973.

The Swaziland railway handled 3.1 million metric tons of freight up to the end of July 1973, against 3.3 million tons the previous year. The reduction was mainly in the movement of iron ore. The position deteriorated in the second half of 1973 when the supply of locomotives, the responsibility of the Mozambique State Railway, became inadequate as old steam locomotives went out of service before new diesel engines were available.

The prospect of early closure of the iron ore mine has led to an urgent reappraisal of the railway's future, but indications are that, without iron ore traffic and with a correspondingly reduced length of line to maintain, the project should be able to continue as a viable carrier of the country's other exports (in particular sugar and wood pulp) and of its imports. ■

The R.A.N.

Abidjan-Niger railway corporation

by Lancina KONATE (*)

The R.A.N. (the Régie des chemins de fer Abidjan-Niger) is an organisation operated by two countries and serving four. It is now being modernised and it has further projects for the future. The R.A.N. recently broke the african speed record with a run at 130 kph.

The organisation and operations of the Abidjan-Niger Railway are governed by a Convention between the Ivory Coast and Upper Volta Republics.

The organisation came into being at the beginning of 1960, to manage and operate the existing railways in the Ivory Coast and Upper Volta, transferred to these States after the fragmentation of French West Africa.

The Convention was not in fact signed until April 30, 1960. It is the basis for the formation of the R.A.N.

The R.A.N. ranks as an industrial and commercial body, with separate civil personality and financial autonomy. It is administered by a board of 17 members, made up by equal representation of the two countries, and by a general management board. The Chairman and Vice Chairman are nominated by agreement between the heads of State of the Ivory Coast and Upper Volta. The offices are held by the Ministers for Public Works and Transport in the two partner countries. The General Manager is appointed by the Board of Directors, subject to approval by the heads of State. The headquarters of R.A.N. is at Abidjan (Ivory Coast), and its general management is represented at Ouagadougou (Upper Volta).

It has a total payroll of 4 500 people of all grades, and operates a system of 1 173 km of main line railway, of which 1 147 km comprise the line from Treichville, the railhead to Ouagadougou, which is the terminus of Abidjan-Niger.

(*) Director General of R.A.N.

The railway in the two countries' economies

Since the R.A.N. was formed in 1960 it has continuously played a leading part in the industrial and agricultural life of both the countries concerned.

The traffic has accordingly been on an upward curve. One reason for this is that, though the system is primarily in the service of only two countries, it also serves Mali and Niger, **so that four countries are concerned in its operations.** This explains the fact that a major part of the traffic—75% of the ton-km of goods traffic and 60% of the passenger-km—ranks as international.

In Upper Volta 85% of the ton-km carried into or out of the country, and 50% of the internal goods traffic using all forms of transport, are carried by the R.A.N.

In 1973 the R.A.N. import and export traffic into or from Upper Volta was up by 21.25% and 49.54% respectively by comparison with 1972.

At the same time there was a considerable growth in the newly introduced container traffic. The increase under this head was 50.96%. These facts all show how important is the part played by the railway in the economic life of Upper Volta.

In the Ivory Coast the railway traffic in 1971 was 26% of the ton-km of goods, and 28% of the passenger-km carried in the country. It should be noted, too, that in 1973 the tonnage of merchandise carried was up by a further 6.95% on 1972.

The volume of traffic is not the only indication of the important part played by the R.A.N. in the economic systems of the two countries.

The governments of the two countries have used the railway as a point of departure for initiating a number of industrial and agricultural operations.

In this connection one of the decisions taken was to set up a number of important industrial establishments in the Ivory Coast along the course of the railway. These include the UTEXI textile mills at Dimbokro, COTIVO at Agboville and the sugar establishments at Ferkessédougou.

Other projects include:

— at **BOUAKÉ**

a) plant extensions at Gongreville. This will necessitate a branch line.

b) formation of a company for processing oil seeds and refining vegetable oils (TRITURAF). A branch line has already been opened for this purpose.

— at **AGBOVILLE** — the setting up of:

— the URASIA knitting mill;

— a dyeing mill (project);

— a textile school (project).

— at **KATIOLA** and **FERKESSÉDOUGOU**

— textile-making-up factories to employ between 6 000 and 7 000 workers (project).

In Upper Volta the economic importance of the railway is illustrated by development programmes providing for setting up:

— at **BANFORA**

— a sugar production unit with an outpost at BEREGADOU-GOU;

— the big Upper Volta flour mills.

— at **BOBO-DIOULASSO**

— a number of industrial units including the CITEC oil plant;

the African Tyre Company; a battery manufacturing plant; other companies, such as MAVOCI, and BRAVOLTA.

— at **KOUDOUGOU**

— a textile mill (VOLTEX).

There can thus be no doubt that, in future years, the R.A.N. will have to carry a much bigger traffic than at present. Its existence has helped towards very considerable investments, including over F-CFA 35 000 m. for the Ivory Coast textile industry alone.

The increase in the activity of R.A.N. is also due to the traffic it carries for Mali.

In 1973 this traffic consisted of:

— 27 517 tons of goods carried on the line TREICHVILLE-BOBO-DIOULASSO;

— 26 683 tons for TREICHVILLE-OUANGOLODOUGOU;

— 20 809 tons for BOBO-DIOULASSO-ABIDJAN;

— 7 952 tons for OUANGOLODOUGOU-ABIDJAN.

Thus the R.A.N. traffic from and into Mali in 1973 amounted to 82 961 tons.

It should be noted, too, that the reports made for the R.A.N. by O.T.A.M. foreshadow a doubling of the traffic between 1971 and 1980. For passenger traffic it is estimated the total will rise from 625.6 to 1 230 million passenger-km and the goods traffic is expected to rise from 404.1 to 785 ton-km.

The following table shows the growth in the same traffic over the period 1960-73:

It was in the light of this growth, that in 1971 the R.A.N. drew up its 1971-80 investment programme, calling for total expenditure of F-CFA 38 000 million. This covered not only improvements in the Abidjan-Ouagadougou line, but also the acquisition of new rolling stock and the modernisation of fixed installations.

In 1973, however, the R.A.N. found it necessary to review this programme in the light of further traffic forecasts made in 1972, the work which had actually be done in 1971-73 and adjustment of the cost estimates.

The new investment programme is for 1974/80, and on the basis of estimates in December, 1973 calls for a total of F-CFA 41 000 m.

Among the items included are:

— infrastructure improvement by track rectifications;

— welding and ballasting of the line;

— telecommunications improvement ;

— adaptation of the railway to a new signalling system;

— layout and construction of stations;

— provision of more effective vocational training;

— material and rolling stock renewals.

Modernising the permanent way

a) Track reconstruction

Priority has been given to the reconstruction of over 400 km of permanent way between Agboville and Tafiré (km posts 81 and 488).

This is a high-density section, built between 1910 and 1927. Because of its age, its present condition was no longer in conformity with security requirements and the handling of the

Traffic: 1960/1973

Year	Passengers		Goods traffic	
	Number	Passenger km	Tons	Ton-km
1960	1 524 334	219 344 924	561 467	216 192 091
1970	2 564 601	625 577 494	755 660	404 138 438
1971	2 630 738	700 923 418	800 912	448 413 232
1972	2 595 512	777 539 260	480 070	480 068 136
1973	2 827 827	883 110 693	945 887	547 575 269

R.A.N. traffic. As was the case with the Agboville-Dimbokro section (106 km) which was wholly rebuilt, the work is intended to provide better technical characteristics over the whole section.

The aim of the reconstruction is to facilitate profitable operation without load-breaking and make it possible to increase the train speeds.

The Agboville-Dimbokro section, which has already been reconstructed, includes a double track for 15 km between the stations at Céci and Anoumaba. The rectification of this section enabled a 550 h.p. rail-car to set up a speed record of 130 kmph.

These works cost about F-CFA 3 000 m., of which, F-CFA 1 670 was financed by an E.D.F. loan of F-CFA 1 670 m., while the remaining F-CFA 1 330 m. was found by R.A.N. itself.

Under the current modernisation programme, the reconstruction work on the Dimbokro-Bouaké section (134 km) will be put in hand about the end of 1974.

The reconstruction of the Bouaké-Tafiré section (175 km) will come immediately after this. Discussions for the financing of this part of the work are now in progress between the R.A.N. and the various finance organisations.

The total cost of the work between Dimbokro and Tafiré is estimated at about F-CFA 17 000 m., and completion is expected in 1978.

b) Welding and ballasting

The programme provides for welding the lines and ballasting the track. The welding is intended to eliminate the joints, which are the weak points of the line, and strengthening it by adding the necessary ballast.

The welding, which is aimed to secure economies in the upkeep of rolling stock and permanent way, will also have the effect of providing greater passenger comfort.

A schedule has been drawn up for carrying out this welding work over a period of about two years, between July 1974 and December 1976. Work has been put in hand on six separate sites, two in the Ivory Coast and four in Upper Volta. The credits needed for the completion of the welding programme are estimated at F-CFA 260 m.

The ballasting will cost F-CFA 380 m.

These works are scheduled for completion in December 1976. The ballasting on the part of the line in the Ivory Coast was completed in 1972.

Up-to-date signalling

Priority has also been given for putting in an electric system of signals to provide a higher level of operational safety. The work

will make the traffic increasingly fluid owing to the greater capacity of the line and the speed of the trains.

The planning for the signals system has been put in the hands of the french company SOFRERAIL. Discussions of financing plans are in hand between the R.A.N. and the African Development Bank and have now reached an advanced stage. The total cost of the works will be about F-CFA 3 000 m.

Equipment

The expected increase in traffic inevitably means that the R.A.N. must have more locomotives and rolling stock.

1. Locomotives

At present the numbers of locomotives are as follows:

- 20 locomotives of 1 000 h.p.;
- 8 locomotives of 1 500 h.p.;
- 8 BBB locomotives of 1 800 h.p., or two more than in 1973;
- 5 locomotives of 2 400 h.p., or one less than in 1973;
- 28 shunting engines, of which: 17 of 150 h.p., 3 of 400 h.p. and 8 of 450 h.p.;
- 17 rail-cars (against 18 previously, one rail-car having been scrapped), of these, three are air-conditioned.

2. Rolling stock

The rolling stock consists of 1 385 units, made up as follows:

- 96 passenger coaches;
- 663 covered goods trucks;
- 179 platform trucks;
- 185 open trucks;
- 60 special goods cars;
- 10 service vans;
- 64 leased goods trucks; and
- 100 tank trucks.

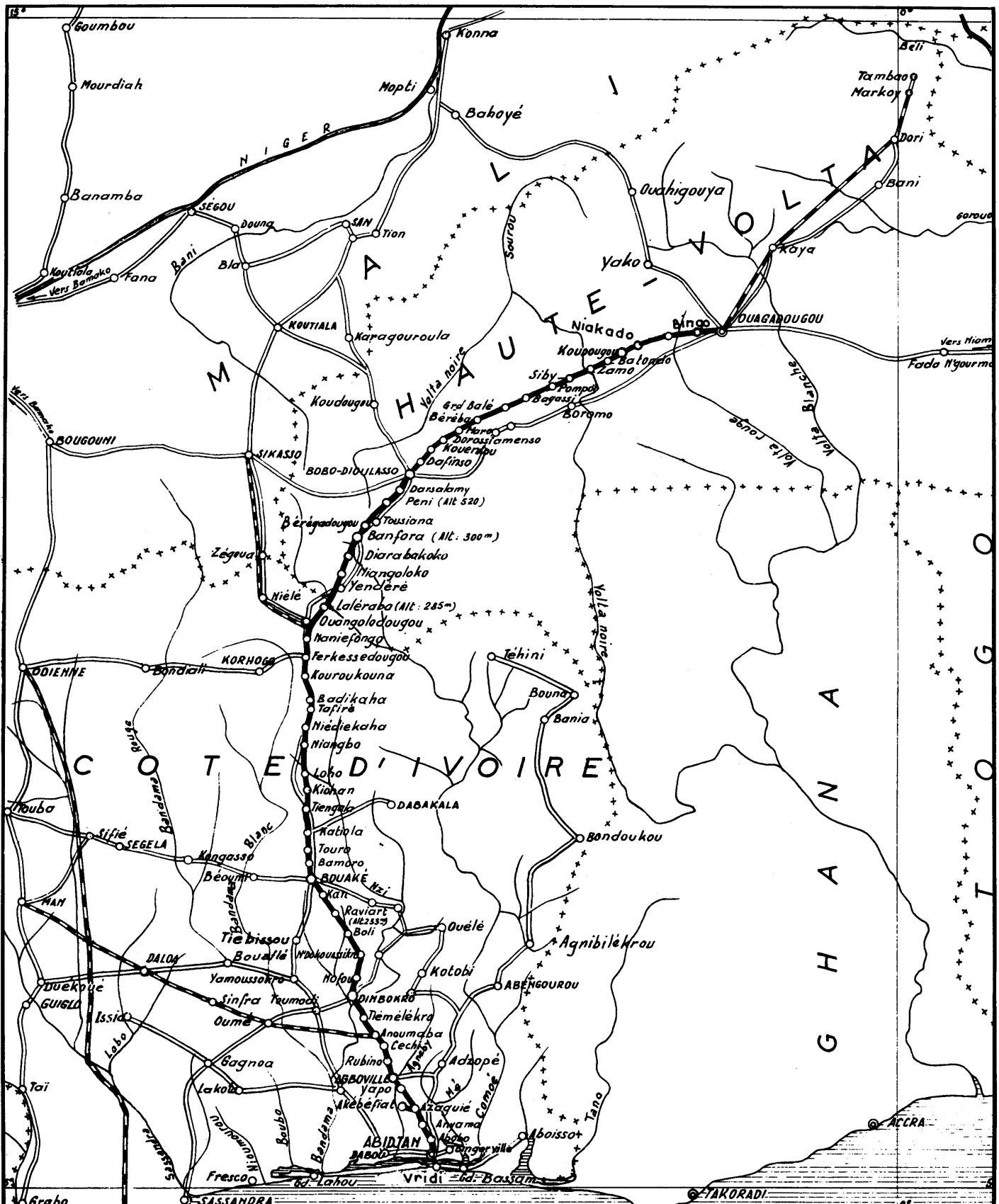
A glance at the list of locomotives and rolling stock available, makes it easy to see how difficult it is for R.A.N. to meet its traffic requirements, which are growing at an annual rate of 12% against the 6% allowed for in the plan.

The R.A.N. thus finds it necessary to double the train service between Abidjan and Ouagadougou, bringing it to two departures daily in each direction.

With this in view, the plan is to run a fully air-conditioned train between Abidjan and Ouagadougou, and extra trains between the big towns, Abidjan-Agboville, Abidjan-Dimbokro, Adidjan-Bouaké and Ferkessédougou-Bobo-Dioulasso.

In addition, the modernisation programme will make it possible to provide a higher standard of comfort for passengers, owing to air-conditioning and coaches better designed and





	Existing line		Parallel road
	Planned line		State boundary

CAPTION
 Scale: $\frac{1}{4.500.000}$

CALQUE
N° 5832

Map of the R.A.N.

with improved suspension, fitted with bogies better able to withstand the strains of acceleration.

For this purpose the 1974-80 plan calls for the purchase of:

- 11 rail-cars of 925 h.p., four of which to be acquired in 1974. Of these four, orders have already been placed for three.

- 19 locomotives, including 15 of 1 800 h.p., the 4 others having to be replaced by 2 BBBB locomotives of 36 000 h.p.

The immediate provision is for 9 locomotives of the 3 B type (1 800 h.p.) to be acquired in 1974. Among the 9 there will be 5 acquired through the finance of F-CFA 900 m., provided by the European Investment Bank.

The other 4 are to be purchased through finance facilities provided jointly to the R.A.N. by the Caisse Centrale de Cooperation Economique and the Crédit de la Côte-d'Ivoire, the amount required being found by R.A.N. from its own resources. The cost of these 4 locomotives will be F-CFA 720 m.

The 1974-80 programme also calls for the entry into service of 5 express trains, each of which will consist of 2 locomotives of 925 h.p. at either end of a train of 7 coaches.

Each of these train sets will be able to take 600 seated passengers (104 1st class).

They are for delivery to the R.A.N. between June 1976 and March 1977. They will be entirely air-conditioned and will be financed partly through Caisse Centrale de Cooperation Economique and Crédit de la Côte-d'Ivoire, and partly from R.A.N.'s own resources. The total cost will be F-CFA 3 700 m.

A further 3 trains are to be acquired between 1970 and 1980.

In addition, under the 1974-80 plan, purchases will include:

- 30 shunting engines of 450 h.p. and 7 of 750 h.p. Of these, 20 of the former and 3 of the latter are for acquisition in 1974;

- 53 passenger coaches of 1st and 2nd class and one luggage van (of which, 4 1st class and 10 2nd class coaches are to be bought in 1974;

- 525 covered goods trucks of 40 tons capacity;

- 10 platform trucks of 40 tons capacity, with 2 bogies for acquisition in 1974; and

- 7 self-loading special trucks for carrying earth for the roads and buildings department.

Personnel training

With new and more powerful locomotives, increasingly intricate mechanisms, and the new signalling and new management methods, it is clear that the R.A.N. must think out a more effective and more thorough training and retraining policy.

It has accordingly been decided to set up new vocational training centres to provide refresher courses for existing staff and a fuller training in railway operation for newly recruited personnel.

These training centres should make it possible to provide instruction facilities of various kinds. For this purpose, it is proposed to set up a railway centre, consisting of a principal centre at the Abobo station, to which the R.A.N. workshops will be transferred, and two secondary centres at Bouaké and Bobo-Dioulasso.

The cost of these centres is estimated (1973) at F-CFA 700 m.

Workshop transfer to Abobo Station

Under the main town-planning scheme for Abidjan, the present site of the R.A.N. workshops is part of a district classified for government, administrative, cultural or commercial use. Arrangements are therefore scheduled for transferring the railway technical facilities to the neighbourhood of Abobo Station.

This is an urban area which will have a population of about 80 000 by 1980, and it is here the produce markets are to be established. It will be an industrial zone, in which the railway will probably have a number of sidings.

In this new urban area, the R.A.N. is to build a station for suburban passengers, a marshalling yard and a station to serve the produce markets.

This transfer will also involve the re-housing of all the administrative departments and general management of the R.A.N. in a projected new building. Studies have been put in hand for planning the R.A.N. operations at Abobo Station. They are being prepared by SOFRERAIL (Société Française d'Etudes et de Réalisations Ferroviaires).

Line extension and construction

Under this heading there are two important projects to be mentioned.

- In the Ivory Coast a new railway is planned in the south-west region to carry iron ore from Mount Klahoyo (Man department in the western area of the Ivory Coast) to the ocean port at San-Pedro.

- In Upper Volta it is planned to extend the line northward from Ouagadougou towards Niger for a further 350 km. The new terminus will then be at Tambao, near an important manganese seam which is to be mined.

E.E.C. contribution to R.A.N. operations

No list of R.A.N. projects could be complete without mention of the help given by the European Economic Community.

This help, through the European Development Fund, goes back as far as 1962, when subsidy of F-CFA 546 m. was provided for the purchase of:

- 16 rail-car sets;

- 9 passenger coaches;

- 20 livestock trucks and the modernisation of metal bridges in the system.

The E.E.C. also financed the reconstruction of the Agboville-Dimbokro section by a loan on special terms of F-CFA 1 670 m. made to R.A.N. in 1968.

In 1974, too, R.A.N. had several loans from the E.E.C. These included the finance through the E.D.F. and the European Investment Bank for modernising the Dimbokro-Bouaké section, and the acquisition of 5 locomotives of the type 3 B 1 800 h.p.

These loans amounted to F-CFA 5 300 m. The contracts were signed on April 19, 1974 in Brussels and consisted of the following:



Naud

Busy scene in front of Bobo-Dioulasso station (Upper Volta).

E.E.C. Loan

The E.E.C. not only committed the E.D.F. resources for a loan on special terms of F-CFA 1 400 m., but also made a non-repayable grant of F-CFA 612 m. to provide a rebate of 2½ % on the interest on the loan made to the R.A.N. by the European Investment Bank.

As a result of these two transactions, the E.E.C. will have contributed F-CFA 2 012 m. from the resources of the E.D.F.

E.I.B. Loan

In addition, another E.E.C. finance institution contributed finance for the R.A.N. modernisation and renewal operations. This was the European Investment Bank. Through this organisation a loan of F-CFA 3 900 m. was made to the R.A.N., including F-CFA 3 000 m. to finance work on the Dimbokro-Bouaké section, and F-CFA 900 m. towards the acquisition of 5 locomotives. This is the loan on which the E.D.F. subsidised a 2½ % interest rebate.

This was not the first R.A.N. transaction with the E.I.B. In December 1972, it had provided finance amounting to F-CFA 833 m. for the purchase of:

- 7 light 2nd class coaches;
- 70 covered goods trucks;
- 30 open goods trucks; and
- 8 shunting engines.

*
*
*

It can be seen from the above, that the European Economic Community, through both the E.D.F. and the E.I.B., has made a most encouraging contribution to the execution of the R.A.N. projects.

It is also clear that the railway is playing an increasingly important part in the economic life of the countries it serves; and this calls for big investments, which the R.A.N. can only provide with the continued help of finance organisations such as those of the E.E.C.

Only this way can the R.A.N. continue strengthening its support to the economic activities of the Ivory Coast and Upper Volta and make it increasingly effective. ■ **L. KONATE**

Madagascar railways

in the economic and social development of the country

by Raymond RANAIVOARIVELO (*)

After the conquest in 1895, the occupying power had no time to lose in consolidating its supply lines with metropolitan France. This meant providing means of communication between Tananarive and one of the ports on the main island. The principle of building a railway was accepted at the outset, for there could be no question of building a heavy-duty road for these purposes at a time when motorised transport scarcely existed. The route lay through difficult country, and between 1896 and 1901 a great number of projects, with which we need not concern ourselves, were brought under consideration. The solution ultimately adopted was the route of the existing T.C.E. Line (Tananarive-East Coast), which its initial terminus at Anivorano, but which was extended, while it was still under construction, to reach Brickaville. From here, passengers would travel by boat on the Pangalanes Canal to Ivondro, which lies 12 km south of Tamatave, in the delta of the river of the same name. From this point the capital, Betsimisaraka, was reached by another railway.

Though the work suffered from a violent cyclone in 1905, it was brought to completion in 1909. The need for two load-breakings proved very inconvenient in practice; and before the end of 1909, further work was put in hand to take the line to Tamatave, which it reached in 1913.

This line was scarcely finished before it was decided to build two important branch lines, and the work on these continued despite the 1914 war. They were:

— The M.L.A. Line from Moramanga to Lake Alaotra, 168 km in length, which was built between 1914 and 1923. Its purpose was to link the main T.C.E. Line with a very fertile rice-growing area, which was to be intensively developed;

— the T.A. Line from Tananarive to Antsirabé, 154 km in length, on which work was begun in 1913 and completed in 1923. This line serves a very populous area; and today it is still more populous, with a great variety of profitable crops, many thermal springs, a pleasant climate and a number of tourist resorts.

At the same time surveys were put in hand for linking the fertile plateaux around Betsileo with the East Coast. This proved to be an "acrobatic" line, the like of which is not to be found

(*) Director-General of the Malagasy National Railway System.

Before the railway

A traveller arrives at Tanarive in a filanjana (1899).



Freight transport in the same period.



except in some parts of the Cordillera of the Andes. It is known as F.C.E., and runs for 163 km between Fianarantsoa and Manakara. Construction was in 1927/36.

Characteristics

The topography of the island necessitated the building of railways with very severe characteristics. This applies, particularly, to the T.C.E. and the F.C.E.

The T.C.E. line starts at Tamatave, 4 m above sea-level, and its other terminus at Tananarive is at an altitude of 1 245 metres. Its highest point, 40 km from Tananarive, is in the Génie tunnel at an altitude of 1 430 metres.

Some idea of the difficulties facing the builders of this 367 km line can be had from the fact that some of the gradients are as much as 25 per mille, some of the curves have a radius as small as 50 metres; there are 93 bridges or viaducts, 392 aqueducts, 149 cuttings and 30 tunnels. The original Vignole rails of 25 kg to the metre were replaced during the fifties by 30 kg rail mounted on metal sleepers; and in view of the continued increase in the traffic load and the weight of the locomotives, the line is currently being renewed with 36 kg rail. Since the line was brought into operation, the following very important improvements have been made:

- rectification of many curves of between 50 and 80 metre radius, substituting radii of between 100 and 150 metres. Unfortunately there are still a number of sharp curves, but provision has been made for their progressive rectification;

- construction in 1955 of an important variant, with financial help from FIDES. This is in the Ivondro delta. Its purpose was to move the track away from marshy and unreliable ground, and from the coastal mist and, most of all, from the disastrous effect of cyclones and tidal waves. The main works in the delta have been several times damaged by these disasters, and in 1949 the 246 metre road-and-rail bridge over the Rianila at Brickaville was swept away. The construction of the variant had to provide, in addition to the reconstruction of the Brickaville bridge, for the following:

- the Ivondro bridge (4 spans of 73 metres);
- the Nossy-Ve bridge (2 spans of 72 metres);
- the Vorinkina bridge (36-metre span);
- the Lohalakana bridge (26-metre span).

- another important variant between the stations at Ambila and Brickaville. Work on this is now almost finished, thanks to a participation of \$6 m. (about F-CFA 1 500 m.) by US-A.I.D. This covers a distance of about 15 km, considerably moderates the gradients and thus avoids the need for resorting to multiple traction for this small sub-section of difficult route on a section of the line which is virtually flat for over 100 km.

- at the same time, this deviation also involved rebuilding the Ambila bridge over the Pangalanes canal, and taking the line over a viaduct at a height of nearly 40 metres. The effect was to bypass two exceptionally difficult tunnels, which were themselves located on curves of 50 metres radius. The two latter improvements were brought into service in 1971 and 1974 respectively.

The M.L.A. Line: No special gradient difficulties. In exceptional cases there are curves of 80 metres radius and one gradient of 15 per mille maximum. There are only 56 bridges, the

longest of which is 60 metres across. The line is 167 km in length at an altitude of 911 metres at Moramanga and 756 metres at Ambatosoratra (Lake Alaotra).

The Tananarive-Antsirabé Line: This goes across very broken country. The terminal altitudes are 1 245 m at Tananarive and 1 501 m at Antsirabé, and the highest point is 1 684 m near the Sambaina station. The highest gradient is 15 per mille and the minimum curve radius 125 m. The route is characterised by deeply-gashed laterite, and its many major construction works include 7 tunnels and 9 bridges or viaducts of more than 100 m.

The Fianarantsoa-East Coast Line: The line runs from sea-level to a terminal at an altitude of 1 086 m at Fianarantsoa. In one section there is a 669 m change of level in 24 km of line, necessitating gradients of up to 35 per mille. The 163 km of line contain 49 tunnels, 33 bridges or viaducts of more than 20 m span.

It should be mentioned here, that in March 1959, the infrastructure of the Malagasy railways suffered very severely from five cyclones in a single month. The very existence of the system was in danger. There were 200 landslides between Tananarive and Tamatave, and several kilometres of track and embankment were swept away. It is only fair to acknowledge that this disaster was mitigated by an emergency gift of 300 million malagasy francs by the E.D.F. in November 1959.

Equipment

Until the fifties the traction material consisted mainly of 52 main-line locomotives and 46 shunters (Mallet: 0-2-0+0-2-0; Garatt: 0-3-0+0-3-0, and others). The rolling stock consisted of 80 wooden passenger coaches with 20 or 48 seats, according to the class and 640 goods trucks, of which 386 were covered, the useful load capacity being between 10 and 28 tons; 4 Michelin railcars on rubber tyres, 1 Billard rail-car and 2 Brissonneau and Lotz diesel electric rail-cars.

Since then, the rolling stock has been completely renewed. Steam traction has been done away with altogether and the malagasy system has been wholly diesel operated since 1954. There are now 35 Alstom locomotives of 625 to 1 200 h.p., 1 CEM 4 B locomotive of 3 600 h.p., 19 shunters of various types, 4 Michelin rail-cars, 11 Dietrich and Soulé rail-cars, 37 breakdown units, 4 inspection units and 18 motor lorries.

The rolling stock consists of 15 modern passenger coaches, 20 wood-frame coaches, 42 rail-car tow-coaches, 520 metal-covered goods trucks of 10-30 tons, 359 platform trucks and 65 self-discharge trucks of 34-38 tons, used for carrying chromium ore. In addition, there are 181 service vehicles of various types. The total equipment thus consists of 127 locomotives, 77 passenger coaches or and 1 125 miscellaneous goods trucks. The maintenance of this material is handled exclusively in the workshops of the system itself, which are the biggest and most up-to-date electro-mechanical outfits in Madagascar.

Traffic

Passengers: The table below shows that there has been a consistent increase in the passenger traffic, and in the average

distance covered per passenger since 1938, which was the best year of the pre-war decade. This has taken place, despite considerable road competition, especially for the Tananarive-Antsirabé and Tananarive-Moramanga lines, and which currently represents a shortfall in receipts (passengers and goods) of more than 300 million malagasy francs.

turnover to diesel traction (1954) improved personnel training, work reorganisation in maintenance and workshop operations and offices.

As a result, the productivity of the system, measured in kilometres per hours work, has been trebled during the period concerned.

	1938	1950	1955	1960	1965	1968	1971	1973
Passengers (thousand)	1 063	1 790	2 330	2 050	2 080	2 123	2 707	3 068
Passenger-km (million)	57	82	140	159	168	181	200	209
Average distance per passenger (km)	53	46	60	67	70	79	83	90

Goods traffic: The carriage of goods consists mainly of:

— agricultural produce for export, consisting of high-grade rice, coffee, cloves, maize, manioc and its products, hides, frozen meat and other products. Since 1968 the traffic has included chromium ore carried from Morarano to Tamatave (see map), which now represents a traffic of 150 000 tons a year;

— imported goods, consisting largely of oil, building materials, iron and steel, machinery, public works materials, ironmongery, flour;

— local traffic, consisting of urban and industrial requirements and currently amounting to about 250 000 tons annually.

The goods traffic is also subject to strong competition from the roads, but it also shows a general and consistent increase. This is shown in the following table:

Management organisation

The organisation comes under a general manager, and is sub-divided into the same main departments, as in most other railway systems. These are:

- General administration;
- Operations;
- Traction and rolling stock (which is also responsible for an up-to-date timber processing station);
- Permanent way and buildings;
- General and technical planning;
- Health and welfare.

For some years the malagasy system has been taking a special interest in developing the use of its electronic management material. It has its own ultramodern data-processing centre,

	1938	1950	1955	1960	1965	1968	1971	1973
Goods carried (thousand tons)	280	478	619	642	704	929	1 238	1 001
Ton-km (million)	57	88	144	152	173	217	308	263
Average distance (km)	200	184	232	245	291	310	335	325

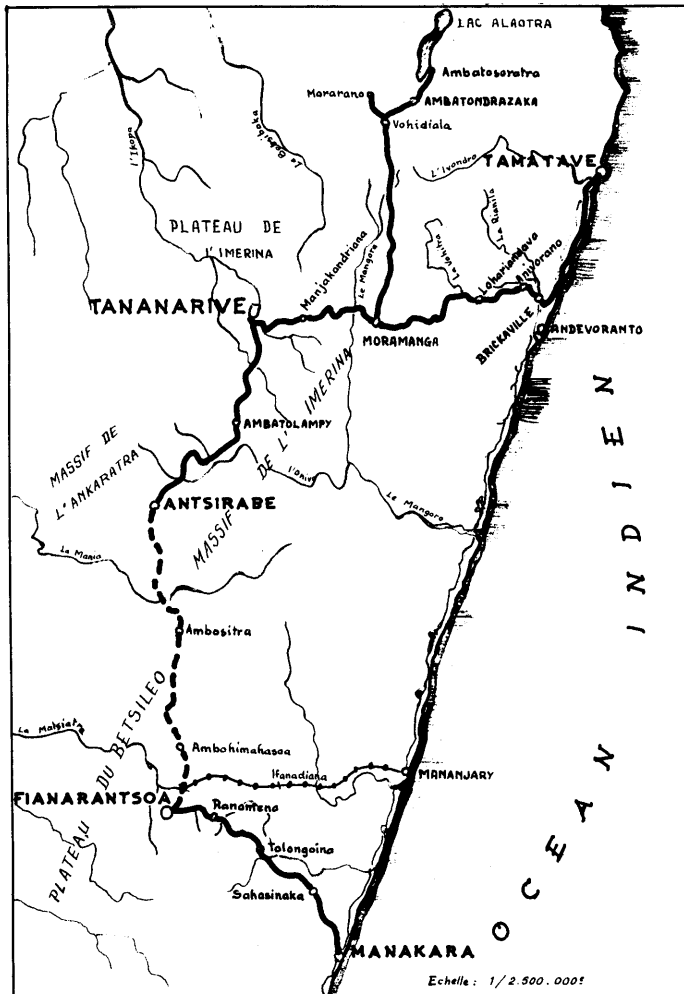
Between 1971 and 1973 there seems to have been a certain setback. This can be traced to the changes in the country's economic policy since 1972. These were determined balance of payments considerations and were reflected in serious import cuts, especially for goods which are not wholly indispensable. This accounts for the fall in tonnage and thus in the ton-km carried, especially on the T.C.E. According to the interim 1974 figures (8 months) the slackening in traffic seems to be ending, and will ultimately appear as only a transitory interruption of the growth.

Personnel

Despite the fact that the traffic has trebled since 1950, there has been a progressive reduction in the total number employed, from 5 705 in 1950 to 5 101 in 1974. This has been due to the

with an IBM 360/30 computer with rapid print-back and four disc units. The centre comprises:

- the planning sub-division which carries out the analyses and devises the programmes necessary for using the material;
- the operations sub-division, which manages the material for the purpose of carrying out its different tasks. At present the centre is used mainly for the following purposes:
 - personnel management—wages, increments, taxes, driving licences etc.);
 - issue of passenger tickets on perforated cards;
 - control of traffic receipts;
 - invoicing (for administrative and other customers);
 - stock management;
 - supply expenditure accounting;
 - general accounting and analyses;
 - calculation of average and marginal costing;
 - miscellaneous statistics.



MADAGASCAR RAILWAYS

- Metric railway line
- - - Planned railway line
- First planned layout for the Betsiléo line

In all this the outstanding achievement is undoubtedly the issue of passenger tickets, which seems for the moment to be the only system of its kind in the world.

It results in the almost total mechanisation of the "passenger" element in the operation of a railway of medium size. It has the following special advantages:

- quicker supply system;
- easier control of ticket sales by dispensing with completion of many forms, and production of control statements which are simple and easily handled;
- direct accountancy entry of passenger receipts and virtual elimination of opportunities for fraud.

This "card ticket" is designed on the principle of the perforated card with counterfoil. The counterfoil is given to the passenger and the stub goes to the computer for processing.

Starting with a minimum stock, determined by the commercial service in each station, and relating to all connections and all fare scales, the first tickets are issued by the computer. After

this the consumption of tickets is analysed periodically from the stubs of the tickets sold. The computer compares the minimum stock requirements and the amount of stock remaining and decides whether or not to issue further tickets.

Economic function of the malagasy railway system

In the early days the strategic character of the railway was more important than the economic; but the latter soon grew in importance and progressively became the sole factor. This is easily understood in the light of the very considerable growth in population (the birth-rate of 2.5 percent is one of the highest in the world); and of the enormous potential of the railway by comparison with other modes of transport, as a support for the economic development of a young country such as Madagascar.

The population of the island in 1895 can be very approximately estimated at about 2 million. By 1950 it had grown to over 3.5 million, and now it is of the order of 8 million. It is important to note that this spectacular growth is very unevenly spread, for the quasi-desert areas of 25 years ago are practically the same today.

This is confirmed from the population density shown in the map. Though the total population has fully doubled between 1950 and 1975, there are some regions where it has certainly risen 4-fold. This is the case, for example, in the rich plateaux of Imerina and Betsileo. This of course has had a major effect on the railway traffic which, in the period since the first year of statistical reference in 1938, has shown a 3-fold increase in passenger traffic, while the goods traffic has risen 5-fold.

The growth has been regular and consistent, and makes it impossible not to feel optimistic about the malagasy railways. In the short or medium term, it provides ample justification for the important technical improvements envisaged in the equipment and material; and, in the somewhat longer term, it will call for the laying of new lines, which will inevitably become necessary in a future which may not be very distant, when the population rises to 20 million or over. This leads naturally to an examination of the future prospects for the malagasy railways.

Future prospects

As regards the immediate future, and provided total or partial finance can be found, a number of urgent improvements are scheduled between now and 1978, both in infrastructure and in material renewals.

The most important of these are:

- modification of sidings at Moramanga;
 - modification of sidings at Brickville;
 - extension of the track into the Andasibé forest;
 - urgent restoration or reconstruction of various aqueducts, metal bridges, drainage equipment and other works;
 - acquisition of various earth-shifting, goods-handling and movement material;
- representing altogether an investment of nearly 600 m. malagasy francs.



Pirogues are still used on the Ivondro despite the railway (T.C.E. line, 264 m bridge).

In the longer term, a number of other projects will doubtless be the subject of thorough studies, and in some cases these have already been made.

Among the chief of these I should mention:

- increasing the reception capacity of the main line in stations and at some of the crossing points;
- interdependent signals and remote control of points;
- rectification of the remaining sharp curves, especially the 50 m curves in the Mandraka region;
- subject to adequate finance, the big project for a line from Antsirabé to Fianarantsoa.

As regards the last, there are many arguments in favour of the undertaking. These can be briefly summarised as follows:

- the resources of the area covered, the continued growth in population and its present density;
- inherent advantages in unifying the railway system, which is at present cut into two parts.

Added to these is the prospect of picking up, not only the goods and passenger transport from the "dorsal" route between Antsirabé and Fianarantsoa, but also the traffic for the area south of Fort-Dauphin and Tuléar, which at present comes to Antsirabé by road, and of course continues to Tananarive by the same means.

Further traffic potential for this line includes the known mineral resources around Ambositra (nickel) and Ambatofinandrahana, where the operation of the marble quarries may provide 150 000 tons a year of heavy traffic.

The malagasy railways are a great public service, and they have a great future. As an economic tool for the country's development they are irreplaceable, and they hold out the certain prospect of development in the future. In every country in the world, prosperity has always followed in the wake of the railway. ■

R. RANAIVOARIVELO

The satellite: a new tool

by Bernard CLERGERIE (*)

"The children of future generations will all have three parents to bring them up".

Perhaps this is one of the true reasons for the growing gap between one generation and the next. For the first time a generation has grown up knowing much more than its parents ever did—in terms of actual knowledge in its picture of the world, its consciousness of the world's dimensions, and the way people live. The cinema, the radio and, most of all, television, have borne their part in creating this state of things.

This idea of an electronic revolution in education was bandied about from MacLuhan to André Malraux. It made a sensation at first; but now, when it is only half-way through, it has given place to the combination of television and the computer. The audio-visual element has thus become the decisive factor.

Today a new tool has come to hand, first and foremost for telecommunications, also for radio and T.V. Their scope and flexibility are thus increased; and the radio and television education systems, still entangled in the undergrowth, have now the chance of coming out into the open with a really revolutionary innovation.

The telecommunications satellite became a reality in successive stages.

First we had the geostatic, **point-to-point**, satellite which picked up messages from ground stations and transmitted to other ground stations, which relayed them on their own wavelengths, thus establishing connections between a few distant receiving points. Because of the low power of the satellite emissions, these receiving points were equipped with very big antennae and very costly apparatus.

Next are the **distribution** satellites, for which the theoretical coverage is one third of the earth's surface. By using a somewhat less extensive area, it is possible to transmit stronger signals to smaller stations. It thus became possible to set up connections with, or between, a considerable number of points of emission and reception, which might themselves be connected up with ground television systems.

Finally came the **direct diffusion** satellite, by which a television or radio programme sent out from a given ground station could be broadcast from the satellite with sufficient power to be within the range of receiving sets in the homes of individuals, which will only need a special aerial.

Theoretically, therefore, it should be possible for everybody possessing a video converter and a small aerial to

pick up programmes from a very wide area.

In the limiting case, when the installed power in the satellite can be brought up to 10 kW or over, the reception will be identical with what can be got from the hertzian waves used by ground stations.

The role of the satellite in education (1)

The question thus arises as to the part in education which can be played by satellites, more particularly, the distribution and diffusion types. This brings a variety of questions to the surface.

In the first place, are we dealing merely with an efficiency multiplier, an alternative and more advanced technique which will facilitate the extension and good functioning of education by radio and television?

Or should we go deeper, as did Wedemeyer and P. Schaeffer, and ask whether the use of satellites in the broadcasting of news, education and culture, does not set up a second great revolution, comparable with that which occurred in the 20th century, with the coming of radiophonic and televisual media?

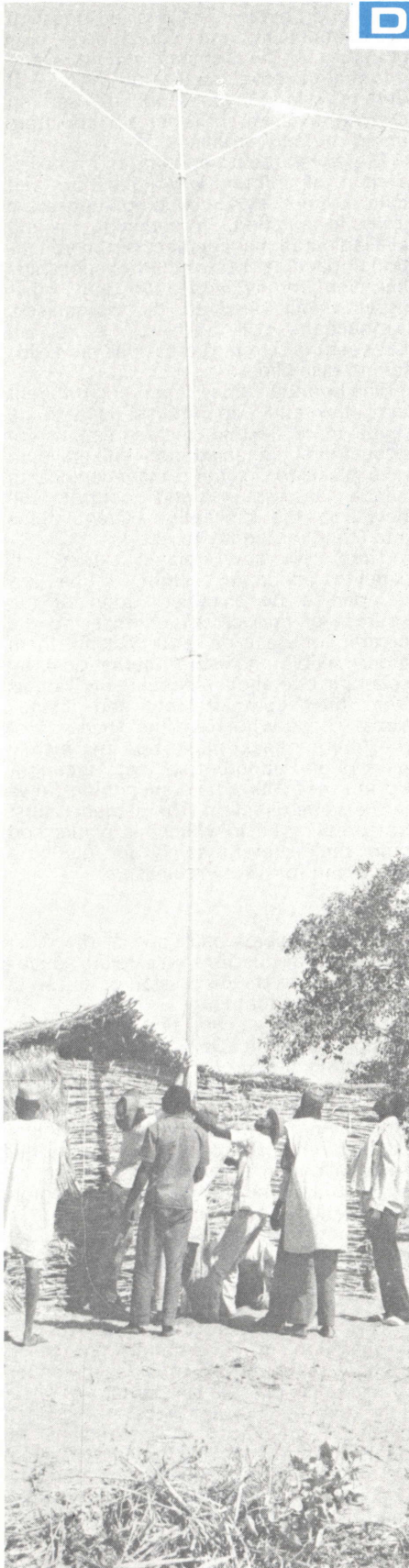
Ought we not to draw up a new set of rules for the game, a different branch of international law on communication and education, covering the new technologies of instruction, an "inter-cultural" apprenticeship still unformulated, if we really want to get the best out of satellites in their educational and cultural potential?

Without this the situation could simply become confused. We shall have the **launchers** of the programmes, who will be the wealthy and the technocratic; we shall have the programme **producers**, the pedagogues and the technocrats

Receiving aerial in a Sahel village.

(*) Secretary-General of AUDECAM (University Association for the Development of Education and Culture in Africa and Madagascar).

(1) Editor's sub-titles.



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each in his own manner; and we shall have the users, the teachers and the taught, seeking, each and all, to be tele-participants and not merely tele-spectators. In this Babel of incomprehension, we would risk cultural domination, national indifference and national rejection.

It is clear enough that an internationally concerted technological approach is an absolute necessity if we are to have a **multinational common market in school teaching**, a law of cooperation in space, in which the sending and receiving of messages shall be based on mutual trust and not subject to suspicious monitoring, making the messages from neighbouring countries precarious and revocable. It is clear, too, that such a concerted approach is not a present possibility.

To understand this, it may be as well to recapitulate the potentialities and the limitations in the use of satellites.

Potentialities

The various technical possibilities should not be allowed to make us forget the essential.

The satellites can provide an **immense diffusion coverage** (theoretically one third of the surface of the earth), which cannot be achieved in practice by the ground-based systems. Using the hertzian waves from ground-based stations, the marginal cost of serving remote or sparsely populated areas, or hilly country, becomes absolutely prohibitive, on account of the need for putting up a great number of retransmitting stations. Under this head, the satellite makes a radical change of great consequence for education and development in these areas. Education, in all places and for all people, on lines which are up-to-date and promote the up-to-date approach, cannot be provided, except by using either distribution or diffusion satellites. Using this system in rural areas there could be community listening centres, in which children and adults could have the benefit, under the guidance of monitors, of education and information which has not previously been possible (1). For the satellite the cost is independent of the distance, for it is quite immaterial where the receiving station is located, provided it is inside the area covered by the satellite. This means that the satellite provides **immediate coverage**, or in any case much quicker coverage by television than is possible for a ground-based installation.

Here again, it is clear that, for the first time in human history, it should be possible to correct the fundamental disadvantage of the rural areas, which

(1) Special mention should be made of nomadic populations. In pastoral zones it would be possible for them to use mobile receivers, combined with mobile video units tuned to a small ground station.

are remote from the T.V. networks based on capital cities, and far less well provided with educational establishments.

Finally, these can be connections between regional and national networks, and even between continents. The satellites can thus give everybody access to the best research workers and the best educationists; and they can set up **"common markets in instruction"** which are indispensable for producing trans-national programmes, or at least common items for broadcasting in several countries with sound track in different languages.

In the general field of information and culture in the widest sense, it becomes possible to use the screen for showing texts, pictures and diagrams, of which different publics can take advantage in turn, overcoming the lack of printed documents. In other words, the use, or the threat, of a satellite is liable to stimulate innovation by shaking the foundations of existing systems and methods of formal education, which are always slow in seeking their own conversion.

Limitations and dangers

On the other hand, there can be no disguising the limitations and dangers inherent in too widespread a use of satellites.

To begin with, it is quite normal in remote areas for there to be no electric current available, unless it be by special and very costly methods, such as solar or chemical energy or local generators. More generally the financial limitation may be decisive. The cost of setting up a satellite system with the transmitting and receiving stations runs into many millions of dollars, to which must be added the annual cost of maintenance, personnel training and other items. Further reference to this point in relation to a specific case is given below, indicating the possibility of finding hybrid solutions, such as the use of telecommunications satellites, hiring antennae and striking a balance between the educational use and use for profitable purposes by the post and telegraph administrations. The fact nevertheless remains that in the poorer regions of the Third World, using the satellite—even though it brings solutions to problems otherwise out of range—is impossible without massive international support.

It is the need for aid which explains the reserved attitude of many developing countries. The immediate fears and objections are embodied in **technological and cultural imperialism**, in the export of the economic and cultural patterns of the donors under their control.

Much could be said about the difficulties inherent in securing international and regional agreements, acceptable to all the partners, about laws governing the use of space. There is the problem of reserving bands and wavelengths in a space already crowded by the more

advanced powers. There is the question of harmonising the educational programmes, of the exchange of cultural and information programmes, of the use of different languages and of settling copyright claims. These are far from being the only problems.

Moreover, the functioning of a satellite system of information, education and culture implies far-reaching upheavals in the formulation, programming, making available and management of the educational machine. Established relationships between formal education and other aspects will need to be reorganised, connections will have to be set up between different professions and different disciplines.

The boundary lines separating different ministries and departments have to be made more flexible; the regulations for educational administration will have to give place to scientific management, in which assessment and control will flow from the application of regulations and strict conformity to rule.

Thus, this new "magic carpet" of satellite education ought to be accompanied by a redistribution of the sources of finance, by rationalising the centres of decision and making them more flexible and more international, by scientific operation, by freeing individuals from their compartments and institutions. Those who have the "benefit" of the programmes must not be merely passive and impotent spectators, caught up in a network where everything flows in the same direction. The gardener must not be allowed to water his plants and tend their growth solely for his own credit and for his own pleasure.

* *

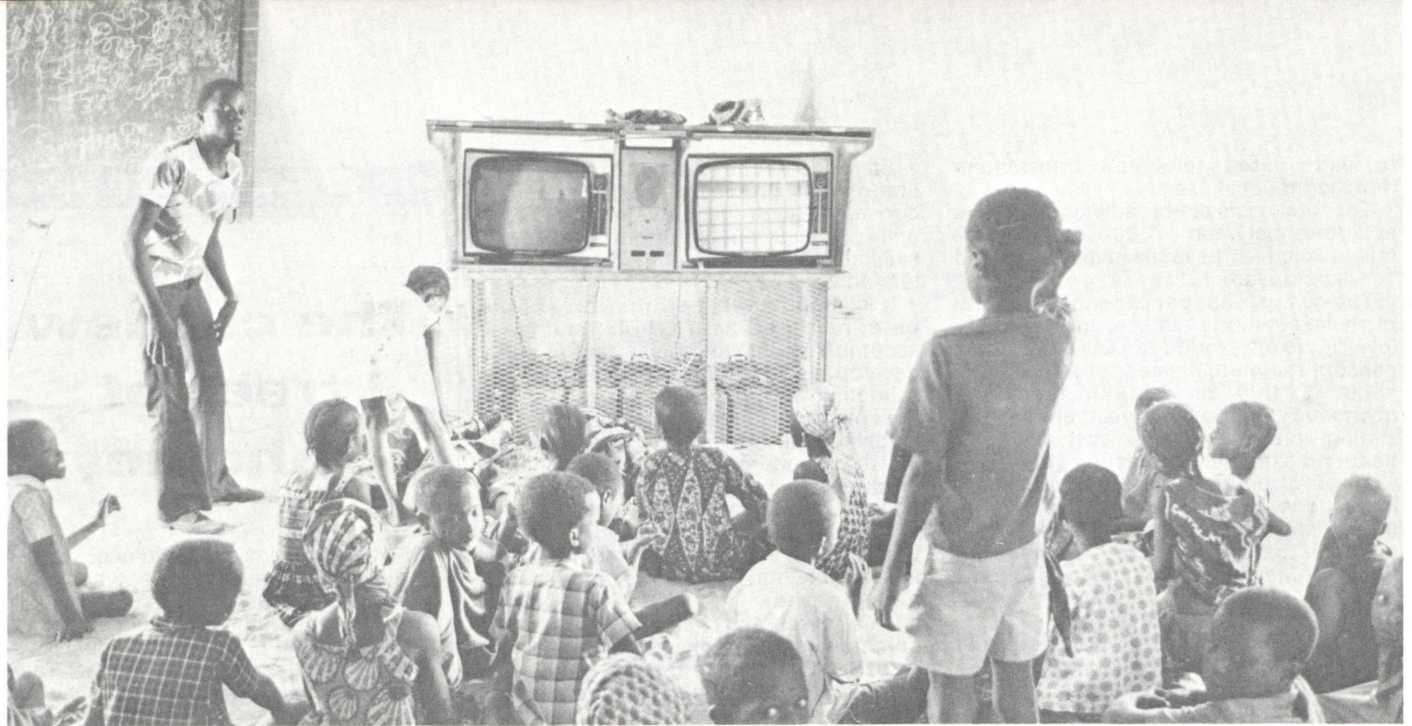
For some years past, one of the most illustrative discussions on satellite education has been the discussion of its use in developing countries.

Since the idea was first launched by Gaston Berger in 1961, the chief work of interesting the countries of the Third World has been done by UNESCO and the International Telecommunications Union. For five years or more, feasibility studies have been in progress in the Andean countries of South America, in India, Brazil, Indonesia, the Arab region and Africa south of the Sahara. In Latin America and India, the projects are more advanced.

The example of Africa

The case of Africa, for which the cooperation of Nine-nation Europe is particularly important, provides a number of examples of facts and attitudes.

In the first place, it is noted that existing education is insufficient in quantity and quality; that it is ill-adapted to development requirements, largely because it is a copy of imported patterns; that it is **ill-balanced**, in that it benefits the urban areas and leads nowhere. With a population growing at ever-



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Television makes school hours more effective.

increasing rates, and despite financial burdens already at the limit of what can be supported, few indeed are the countries which can provide schooling, even at the primary stage, for the whole population in the age-groups concerned.

This cannot be dealt with by the traditional schooling methods. There is an immense demand for education and information, from adults, young people and the unschooled; and some of the countries—Niger and the Ivory Coast are examples—have considered mass communications media. This is partly to mitigate the shortage of well trained teachers, the method being to broadcast school programmes of good quality and have them explained and expounded by teachers and monitors using simple teaching manuals. More generally, however, the object is to substitute long-distance teaching for wide area systems.

Under the traditional system, a teacher has about 40 pupils in his class, and on the best assumption, he will be dealing with five classes, or 200 young people. In other words, in a teaching career of 40 years, 8 000 people will have been through his hands; and in a world in which knowledge and culture are changing fast, the knowledge imparted and the methods of imparting it will have grown more and more out of date.

Under the new system, on the other hand, it is possible to reach thousands of pupils each year, by using radio and television broadcasts; and the messages sent to them will have been compiled by teams from a number of disciplines, keenly alive to advances in knowledge and methods. They can be used in the classroom as a teamwork exercise, in which participation by the pupils themselves may well become increasingly important.

In Africa, there have been experimental television programmes, and some of quite considerable scope; and preliminary studies have been put in hand to assess the possibilities of using satellites. Worthy of special note under this head are the projects for using the satellite *Symphonie* and the Eurospace work (project *Socrates*).

Symphonie

The satellite *Symphonie* is to be launched for an experimental period in January 1975, on the initiative of CNES (the french National Centre for Space Studies). Its coverage will include most of Africa south of the Sahara. It will provide, as from October 1975, one picture channel and four sound channels. It is contemplated that these channels shall be used full-time, and it is hoped that the satellite will be operational for 5 years, with CNES defraying the cost of diffusion.

The receiving stations will take only a few days to install, since they require practically no infrastructure. They can be available by October 1975. They will re-transmit the video signals from the satellite, and these can be:

- used directly to feed receiving apparatus very close (20 metres) to the station;
- stored by magnetoscope for subsequent rediffusion, perhaps after the reels have been taken somewhere else and the programme amended;
- transmitted immediately to a local ground station for long-distance re-transmission (50-100 km).

It is proposed that the experiment should be carried into six or seven african countries, and that these should include different levels of development, different types of civilisation and culture

(e.g. savannah tribes, forest tribes, etc.) and countries of different vehicular languages. To begin with, the countries concerned may be the Ivory Coast, Ghana, Niger, Morocco, Zaire and Cameroon. Each country will have to have a local television system, even if it is only in an embryonic stage, so that it can multiply and rediffuse the video signals. There may possibly be an extension to the Caribbean (Haïti) and the experience could also reach Canada, in Quebec.

The cost problem

It is very difficult to estimate the costs involved in a large-scale use of satellites in a zone of this kind.

The best that can be done is to indicate the order of magnitude by comparison with other possible approaches. In a recent study, five different systems of TV diffusion or distribution were proposed. Diffusion consists of **sending out the message directly to the user from a given centre**; in distribution, **the message is sent to a number of intermediate points**, from which transmission to the user proceeds.

This results in five possible systems:

Diffusion

System 1 — Direct general diffusion by satellite;

System 2 — General diffusion by direct delivery to users of recordings of "general public" quality.

Distribution

System 3 — Distribution by satellite;

System 4 — Distribution by earth-based systems using hertzian waves;

System 5 — Distribution by delivery of "professional" quality recordings;

to earth-based television transmitters diffusing to local users.

The total costs are broadly comparable, at figures between \$1 000 and \$1 500 million to cover the initial investments and 10 years operation.

The cost per annum per school for any of these solutions works out at the very low figure of around \$1 000. By comparison, the annual salary of a teacher is about \$4 000 or \$5 000. From the economic standpoint alone, therefore, the setting up of one of these systems might be found extremely interesting (1).

These of course are only approximate indications. In particular, they leave aside the quality criteria for choosing the methods to be used by reference to priority objectives and operating conditions.

Diffusion by satellite seems to be the most economical, provided the area to be covered is above 7 or 8 million sq. km, and provided there are many schools to be served, and they are spread fairly evenly over the area covered.

Diffusion by video-cassettes seems to be the best solution when the number of schools is small, and they are spread over too big an area for ground-based distribution to be economic.

Distribution by hertzian wave, which is the generally accepted solution, is of no outstanding interest as regards cost. It appears to be cheaper than the space solutions, when the areas to be covered do not exceed 5 or 6 million sq. km. When the average density of schools is less than 4 or 6 per 1 000 sq. km, however, diffusion by video cassettes is a strong competitor.

There is therefore no clear-cut conclusion in favour of any one system. Each has an area in which it does best, and each has specific disadvantages. For global coverage there is the political impediment, that there has to be an agreement between all the countries in the area of reference. Subject to this, it seems that a hybrid system is needed if the global coverage is to be combined with the availability of diversified regional programmes in areas of high population density, and cheap coverage in some of the sparsely populated districts.

Such a system, for example, might use both a satellite and the delivery of reels for programme distribution to local television stations. The use of the satellite could easily make it profitable by including a secondary telecommunications assignment, insofar as this was consistent with the international agreements in operation. Such a system does pay since it is of a commercial character.

* *

(1) According to estimates made in 1972, the Symphonie project, while it is in operation, should make it possible to cut the cost of a 5th-grade primary school-child by 60%, compared with teaching on the traditional lines which, in addition, cannot be extended to cover full attendances in every region without disproportionately high costs.

Starting such projects raises new and difficult problems. Most of them are concerned with the software, the "products" to be compiled for diffusion by the satellite, rather than with the hardware technology.

It is important that **education should be considered as a whole**, and as an accompaniment to social and cultural development at different levels. Formal schooling and university education, and the other systems involved, must be adjusted to fit in with the various stages in the modernisation of agricultural production, agro-industrial development and the service trades.

Knowledge and training on the vocational, civic and cultural sides are thus inextricably bound together, and must be **coordinated**.

This raises the need for a genuine communications policy, conceived on a **multilateral basis**, and no longer as a pyramid in which the authority at the top calls the tune and alone has possession of the instrument.

It is only on such a basis that the potentialities of a very expensive technology can be turned to profitable account, by the combination of large-scale and diversified use, with a general cohesion of the information and transformation activities called for by economic, social and cultural development.

This also requires that administration should be free from the many contradictory restraints of the tradition of rules, regulations, procedures and categories prevailing, not only in the charmed circle of the ministries and services, but also between the countries which have to enter into association with one another, in cooperative projects of installation, production, maintenance, programme-sharing, assessment and feedback to the public, re-loading and administration in general incidental to using a satellite. These are all fields in which an adequate capacity to conform to system is utterly indispensable; and it is this which is lacking almost everywhere.

What is needed is nothing less than the forsaking of systems of action and decision based upon reference—on productivism, technocratic secrecy, the juridical element, powers which are not shared and the keeping back of information—in favour of systems which would be brought to life by a policy of decentralisation, transfers of information, credits, services, messages, in other words communication and translation from one country to another, and from one sector to another.

The development would then lie at the point where policies of communication in every field intersect with permanent policies of information and training, and the opening out of social and cultural relations.

The rest can be left to the dynamics of technology. This is one reason the more for coming down to earth without more ado. ■

B. CLERGERIE

REPORTS

The cashew trees of Dahomey

Most Europeans are quite accustomed to nibbling a cashew nut, whether at cocktail parties or as they sit and watch the telly; but not many of them know much about its origin, or its importance to some of the countries of the Third World. Readers of the "News" may not want to be dragged through the mazes of botany and phytonomy, but they might yet be interested in a brief account of this tree, which is of special interest to Dahomey.

The official name of the tree is *Anacardium Occidentale*, and it belongs to the family known as Anacardiaceae. It is native of Brazil, and was introduced into West Africa by the Portuguese during the 17th century. It has a tall stem, and in good conditions the tap roots go rather deep.

For many years the propagation of the cashew was limited to the coastal regions, around Cotonou, Ouidah and Porto-Novo. It was popular not only for the high nutritive value of the nut kernel, but also for the refreshing and rather tart juice of its fruit.

It adapted itself extremely well to the hot climate in the Sudano-Guinea area; but it was not till 1948 that the Water and Forestry Department took an interest in it. This, however, was only as part of a reforestation programme, aimed at improving land in the big savannah areas in central and northern Dahomey, and the prospect of cropping did not enter into the plan. It was only in 1961 that a planting programme was launched in the form of scheduled forest areas and private plantations.

The programme suffered a setback because the growing techniques had been badly misunderstood. It is a fact that the cashew can live in all sorts of conditions, and it had always been regarded as a common plant which would adapt itself perfectly well to any ecological background. The lesson was now learnt that there are a number of factors which impede its growth and interfere with its productive capacity.

This led to inadequate plantation maintenance, a lack of protection against bush fires, over-crowded planting and general misunderstanding of the growing techniques. The planted area progressively declined, the trees were stunted and the production absurdly small.

The beginnings of a real policy of cashew development came with the support given from the 2nd European Development Fund to a 2 400 hectare industrial plantation scheme, which was followed by finance from the 3rd E.D.F. for a further scheme covering 10 000 ha. Dahomey had learnt the lesson of the previous failures and was able to launch into a big cultivation programme with much better knowledge and improved techniques.

It is now recognised that success in such an operation depends on treating the cashew as a fruit tree, on the same lines as the mango or the avocado, and not as a forest species. This has brought out the importance of several factors:

Selection. Selection is always rather rough and ready. Seed is taken from the trees with the best vegetable development, the biggest production and the biggest nuts.

Climate. It has been found that though the cashew can live through a prolonged dry season, a cold dry wind, such as the harmattan, is a factor against good production. For this reason, production was moved out of the more northerly regions in Dahomey. Damp low-lying regions, too, were found to be unsuitable; and the best climatic area is considered to be central Dahomey.

Soil. The cashew tree is not very particular about the chemical composition of the soil. Shallow hardened soils, however, are to be avoided, because they tend to prevent the full development of the tap root. Preference is therefore given to light soil with adequate depth.

Maintenance. Essential factors in securing satisfactory growth and good production are also the maintenance of the plantations, maximum exposure to the sun and a correct density of planting. Inter-planting with other food crops is also found to be advisable.

* *

The execution of the two programmes of 2 400 ha and 10 000 ha, was put in the hands of SNAFOR (Société Nationale pour le Développement Forestier). The present condition of these plantations is as follows:

- Private plantations: 4 500 hectares
- Administrative plantations: 3 880 hectares (inc. 2 400 ha financed from the 2nd E.D.F.).

A further 10 000 ha of plantation will be added. The planting began in 1973 and will cover 3 400 ha of village plantations, and 6 500 of industrial plantations.

When the programme has been fully carried out Dahomey will have 14 000 ha of cashew plantations.

It is still difficult to estimate how much the future plantations will produce, but it is a fair estimate that the yield will be around 500 kg per ha.

Thus the Dahomey production may quickly rise to a normal level of around



F. Huget

Cashew tree.

7 000 tons, which will go for processing to the shelling plant at Parakou (Province of Borgou). The construction of this plant was part of the main project, and it was inaugurated in August, 1974.

Uses of the cashew

These plantations have an undoubted forestry interest for the countries around the Sahel. For anti-erosion purposes, the value of the deep roots is obvious.

The main object of the plantations, however, is the production of nut kernels, which are widely used in the food industry—cocktail snacks, patisserie, biscuit-making, ice-cream and many other branches.

In addition, a balsam is extracted from the shell, consisting of a phenolic resin, the properties of which are not found elsewhere. It is used in the manufacture of friction materials, special rubbers and coverings, insulating material and for a number of other uses, including plastics and in the space industry. In the african pharmacopia it is used in the treatment of wounds and sores.

It is important to recognise, too, that the pome, though it is not really a fruit but only a swollen stalk, is in fact comestible. It is rich in vitamin C, and can be used for making fruit juice, jam and alcohol. Unfortunately, it is not yet industrially used in Dahomey, but this may well follow in the future, for the pome accounts for 90% of the full weight of the fruit. There are thus considerable possibilities ahead.

Cashew economics

For a long time the principal exporter of cashew nut-kernels was India. This was because, until recently, the main part of the world's production was exported in the form of nuts to India, where the kernel was extracted. This practice was based on the cheap and abundant manpower available in this part of the world. The kernels were subsequently exported, chiefly to the U.S.S.R. and the United States, which are the big consumers.

India has lost its importance in this part of the economic picture because the producing countries are now setting up shelling plants of their own and marketing their own production. It is difficult to make a close estimate of world production of cashew nuts because some of the countries, especially Brazil, are big producers but export only part of their production.

The following table shows the estimated production of cashew nuts in the chief producing countries. The figures cover that part of the production which is sold to industry.

As the table shows, the world's biggest producer is Mozambique, closely followed by Tanzania. The prospects for Mozambique seem to be good, for it is estimated by specialists that the production will be over 400 000 tons by the end of the present decade.

Brazil, too, is currently very active in laying out cashew plantations, whereas the production has so far come from the cropping of wild trees. Over 16 000 ha of plantations were laid out and planted in 1969-72, and the programme aims at extending the area to over 100 000 ha.

Estimated production of cashew nuts in chief producing countries (1962-72) (thousand tons)

	Mozambique	Tanzania	India	Brazil	Kenya	World
1962	111	61	66	10	2	250
1963	165	44	76	12	5	302
1964	176	58	81	15	5	335
1965	147	66	82	15	8	318
1966	131	72	65	14	2	284
1967	118	71	81	18	8	296
1968	175	84	86	15	9	369
1969	140	91	65	15	10	321
1970	175	115	61	15	23	389
1971	140	111	65	30	11	358
1972	150	125	65	40	25	405

In the United States the figure is 173 grams per head, U.S.S.R. 106 g, G.D.R. 134 g and Australia 180 g.

This is largely due to the fact that the E.E.C. is not a homogeneous market, but is split up into a number of national markets which are open in varying degrees to the outside world. Consumers' tastes and food habits are very diverse as between different countries and regions. Italy, for example, imports practically no cashew nut kernels. In France, the consumption is small, but comparatively steady. Federal Germany and Belgium trade somewhat more actively. There are, on the other hand, two countries—Great Britain and the Netherlands—where the consumption is quite high. Another factor diminishing consumption in the European market is undoubtedly the conservatism of consumers.

In the United States, where the consumption is the second largest in the world, the nuts are very much appreciated because of their taste, whether served roast or salted.

In the U.S.S.R. the sole supplier is India. It is probable that the recent introduction (1956) of the cashew into the internal Soviet market was timed as coinciding with the trade balance having swung in favour of the U.S.S.R. Nevertheless, the importation of cashew nut kernels into the country is part of a general nutrition programme, which was a determining factor in creating a habit of consumption.

According to expert opinion, and taking a number of factors into account, including the rising standard of living among the world's populations, it is reasonable to expect the world trade in this product to rise by 1985 to about 150 000 tons. This is equivalent to a requirement of new plantations of the order of 362 500 ha.



F. Hugot

The fruit of the cashew tree is delicious, but only the nut is exported.

Imports into consuming countries

A. World imports of cashew nut kernels

The volume of cashew nut kernels imported, depends in part on:

- population of the importing country (U.S.A.-E.E.C.);
- the standard of living (U.S.A.-E.E.C.);
- the national import policy (U.S.S.R.).

Nevertheless it is noticeable that it is the developed countries which are the biggest importers. The 1969 figures are as follows:

Western Europe	7 275 tons
East Europe	2 924 tons
U.S.S.R.	25 682 tons
North America	36 992 tons
South America	438 tons
Africa	354 tons
Asia	2 307 tons
Oceania	2 273 tons
Miscellaneous	154 tons
World total	78 399 tons

The chief importing countries are the United States (35 200 t), U.S.S.R. (25 682 t), East Germany (G.D.R. 2 329 t), Great Britain (2 600 t), Australia (2 170 t) and Federal Germany (1 459 t).

The imports into the E.E.C. countries were as follows:

Federal	
Germany	1 459 t (24 g per head)
Belgium	197 t (20 g per head)
France	899 t (18 g per head)
Italy	113 t (18 g per head)
Netherlands	946 t (73 g per head)
Great Britain	2 600 t (46 g per head)
Denmark	2 600 t (46 g per head)
Ireland	9 t (46 g per head)
E.E.C. total	6 223 t

In the E.E.C. countries, the consumption of cashew nut kernels is considerably less than in many of the other countries.

World importance of cashew balsam

Mention has already been made of the various uses to which cashew balsam is put. It is obtained by processing of the shell after it has been opened and the kernel removed; and there does not at present exist any similar or competing product.

World exports of cashew balsam, though they are still quite small, are expanding vigorously. In 1971, the total exports of 31 500 tons came mainly from India and Mozambique and went to the chief countries where it is used (U.S.A., Great Britain, Japan).

The present trend is very much in favour of this product, and this seems likely to continue, since it is used in the more dynamic growth industries. The potential tonnage in 1985 is estimated at 150 000 tons. ■ **A. CHAVEZ**

The material used under this heading is taken principally from the reports of E.D.F. delegates in the A.A.S.M.

Robert S. MACNAMARA. — A better life for two billion people. — Collection: *Regards sur le Monde* — Editions Denoël, 1973.

"A better life for two billion people" is a challenge which calls for continued and increasing development effort, which will necessitate strictness and efficiency in the financing procedures used. It is from this two-fold standpoint that the Chairman of the International Bank for Reconstruction and Development has planned this book. It is clearly laid down that the World Bank is not a charity institution, or a form of social aid, but "an investment organisation for development purposes". The scale, the diversity and the difficulties of the task ahead are brought within the general scope of Mr. MacNamara's vision, which is focussed on three main themes. The first is the primary importance of agriculture; the second, the part to be played in campaigns against illiteracy; and the third is population planning. Realistic lines of policy are put forward. These include, the provision of maximum aid to countries which have already introduced family planning schemes adapted to local circumstances; quicker dissemination of new agricultural technologies; and better coordination of the work of everybody concerned.

In the field of humanistic and economic studies, the instruments of analysis are becoming more and more refined; and in the Third World there is a potential for many profitable projects. This is shown by the application of strict rules, which have been worked out by the World Bank.

...

Judith HART. — Aid and Liberation, a Socialist study of aid policies. — Publisher: Victor Gollancz, London, 1973.

International aid is very largely a political question, and all political parties

are interested. In its present form, it comes in for criticism both from the Conservative and from the Socialist groups. The left argues that it serves only to maintain exploitation in the Third World and the ascendancy of privileged minorities. The right sees in it a superfluous charity to governments which are not firmly established. This study by Mrs. Judith Hart, the British Minister for Development, is based on various lines of research, and amounts to a pragmatic reflexion which will give food for thought to the chief aid-giving countries. It puts forward a number of constructive suggestions about the way in which Great Britain's bilateral aid might be better organised from the socialist point of view. It does not bypass the fact that the problem of aid is closely linked with internal policy, and the sound management of the internal economy. Its arguments, nevertheless, will not be to the liking of those who still see aid as an instrument for the maintenance of capitalism and exploitation in the Third World, even if the accent is shortly to be put on income distribution and the need for rural development.

...

A cure for world poverty (Guérir la misère du monde). — Report of a working party, led by Pierre Dehaye — Imprimerie nationale — Paris, 1973.

This document, drawn up by a working party led by Pierre Dehaye, Director in the French Ministry of Economics and Finance, was intended for a first World Day of information on development questions.

The initiative is largely due to President Valéry Giscard d'Estaing, when he was Minister for Economics and Finance. In April 1972, at the UN Conference on Trade and Development at Santiago (Chile), he said: "Opinion in all our countries must be made aware of the real dimensions of the problem. I suggest that a World Day of information on development should be organised under the auspices of the United Nations". This day was held on October 24, 1973, and 150 000 copies of this document were printed and distributed in schools.

The first part emphasises the contrast between the poorer countries and the others. The second assesses the efforts made and the results obtained, and makes it clear that the gap between the poor countries and the others is increasing. The third part suggests that in view of the insufficiencies of the aid, the joint effort towards development should be increased.

The document is well put together. It often recalls facts which are already well known, such as that the less developed countries contain two-thirds of the world's population, but have only an eighth of the world's resources. It also brings up other facts which come less frequently to our attention, such as that the great inequality in standards of

NOTE TO "BOOKS"

Many readers have asked us to send them the books reviewed on this page. We regret that this is a task we cannot undertake. The books can be obtained at or through the nearest bookshop.

living between the peoples scarcely existed in the middle of the 18th century. The gap is thus a comparatively recent phenomenon, dating only from the 19th century and the industrial revolution, and a contributing factor has been the rise in standards of living, resulting from the considerable improvements in productivity in the agricultural sector. In most of the countries of the Third World conditions were very different. "From the beginning of the 20th century, a notable rise began in the minimum size of industrial establishments, and in the amount of the investments needed. When industrialisation began, the equipment per worker represented no more than a year's wages; but today it may be as much as 20 or 30 year's wages. This gives an idea of the scale of difficulty which has to be resolved by the countries which are not yet industrialised".

...

European Development Fund: Financial and technical cooperation in 1973. — Commission of the European Communities, 1974.

This document was compiled by the Directorate General for Development and Cooperation in the E.E.C. Commission. It deals with the administration of financial and technical cooperation between the European Economic Community and the Nineteen Associated countries (A.A.S.M.) during 1973, the third year covered by the second Yaoundé Convention. The reader will find in it a well presented and illustrated account of the distribution of the aid among different sectors of activity; a recapitulation by countries of the 1973 financing decisions; a note on the operation of the aid (modes of finance, preparation and execution of the aid, evaluation of the completed projects); and statistics relating to the E.D.F. and the social-economic indicators relating to the A.C.P. countries.

An interesting fact brought out is that during 1973 the A.A.S.M. had the benefit of commitments amounting to U.A. 183.4 million. In addition, they obtained ordinary loans from the European Investment Bank from its own resources to a total of U.A. 10.9 million, which brings the year's total of Community financings in the A.A.S.M. to U.A. 194.3 million. The document is available in Brussels from the Directorate General for Information of the Commission, and in all of the European Community's press and information offices.

PUBLISHER

Erich Wirsing

EDITOR

Alain Lacroix

ASSISTANT EDITORS

Lucien Pagni

Barney Trench

Circulation: Ilse Grundmann

Secretariat: Colette Grelet

ASSOCIATION NEWS

C.E.C.

rue de la Loi 200

B-1040 Brussels (Belgium)

Tel: 735 00 40 and 735 80 40

Telex: COMEUR BRU 21877

