ASSOCIATION NEWS

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Jean Guvaux

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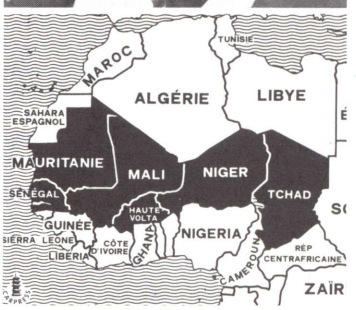


FEATURE OF THE MONTH

Interview with Commissioner Cheysson

Heiderscheid

Shortly after Mr. Claude Cheysson took up his appointment as the new member of the Commission responsible for cooperation and development, "Association News" had the pleasure of introducing him briefly to its readers. It is now time for them to get better acquainted with him, for they do not yet know much about his past life, which has indeed been full and very varied. Facts to be noted in his personal background are his wartime service with the Free French Forces; the military award of the Legion of Honour; and four Croix de Guerre citations. All this goes to his credit as a convinced european. In his educational background there was the Polytechnique and the Ecole nationale d'administration. In his career, Mr. Cheysson has been a diplomat and has been assigned to industrial responsibilities for a number of years, which is rather a rare combination. Moreover, the main part of his career has been devoted to the problems of the Third world which prepared him well for his present office.

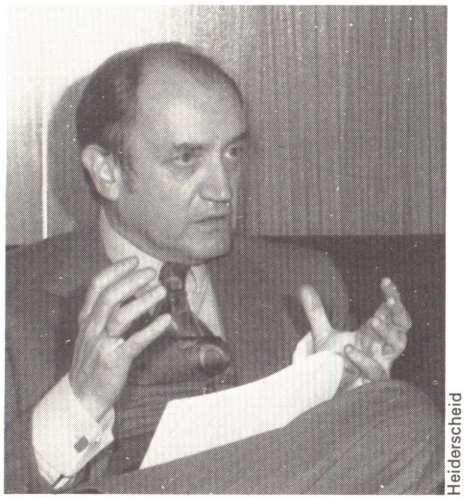
Before we get down to the difficult questions, Mr. Commissioner, we should like to tell our readers in Africa and elsewhere, a little more about yourself. Would you care to tell us, for example, what is your favourite passtime?

If my wife were here, she would tell you my favourite hobby is work; and in fact I have a firm belief in what I am doing here, and so I give it a great deal of my time. Apart from this I have been on ski a great deal in my life and I love getting into the mountains and away from things; and it seems to me to be linked with my love of the mountains that I have great taste for knowing the country and meeting new people. I was four years in the Sahara; and when I was there I went about a lot and would go on *méharés* for weeks at a time. I am probably one of the europeans who travelled most in and around Black Africa during the 5 years I was there; and I am very fond of seeing things on the spot and getting to know the people.

Your great variety of career and personal experiences will certainly be a useful background for your present job and seems, if we may judge from your first months in Brussels, to reflect a desire for clear-cut attitudes and positive action. Is this indeed a characteristic of your state of mind in your new activities?

It certainly reflects my state of mind. I believe it is an essential part of the Commission's task to keep things moving, and I believe it is through clear-cut attitudes that we shall do so. It is important, of course, to be able to look into a further future and paint it in glowing colours; but it is just as important to work for immediate progress, which implies concrete proposals and definite action. We have to remember that this great organisation in the Berlaymont is now vested with a whole host of responsibilities; and it would be serious indeed if we should be criticised for the way in which we tackle our responsibilities. It would be still more serious if we should tackle those responsibilities badly, so that progress should be retarded. This is a house in which good management is essential. This attitude is indeed one of my characteristics, for I like things to be well organised and functional. Perhaps this is because I have spent part of my life as an industrialist, or perhaps it is just a form of mental orientation; but your diagnosis of this personal aspect is correct.

On October 17 and 18, 1973, the ministerial conference marking the opening of negotiations was held in Brussels. The negotiators were on the one hand the European Community and its member countries; and on the other, the Associated countries in Africa, Madagascar and Mauritius and the independent Commonwealth countries in Africa, the Pacific and the Antilles, together with certain other african countries. Would you be so kind as to give us your impression of this first negotiatory meeting at the ministerial level?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There had of course been an earlier meeting in July; and I was impressed by the fact that this was the first time all the african countries were present, including Guinea, but they chose only a single spokesman, whereas in July they had three. Thus, unity was maintained among all these countries, despite the very difficult discussions, which had now come into the detailed stage, which took place between them between July and October.

And do you think this augures well for the further negotiations?

I regard it as an essential factor, if we want this negotiation to have a scope which you will allow me to call historic. If we had been wanting something smaller, it would have been easier; but it would have been much less important.

I think we are now trying to achieve something which is difficult. The africans were anxious that we should do something important; and to make it important it was necessary they should all be there, which I am fully aware is difficult in itself. Do not forget, too, that this meeting took place at a very important moment in the life of the Third World, indeed, in the life of the world at large, for it was a time when a war was being fought in the Near East. There was a sharp contrast between this conference in which Europe and the entire african continent were working out a lasting system of peaceful cooperation and, on the other hand, the bloody war in the Near East, in which we must admit two great powers had played an important part as suppliers of weapons. I found the contrast most impressive; and believe me, all our talks made it clear that our african friends were very sensitive to it. We are indeed on the point of attempting something which is of very great importance.

Do you think that the memorandum put forward by the Commission last spring embodies a suitable and sufficient solution to the main problems in this negotiation? I am thinking particularly of the stabilisation of export receipts which is the chief innovation proposed.

In recent months I have often said and written that I consider this memorandum to have been very good; and I abide by my opinion. Admittedly the solution is less than sufficient when you set it beside the serious character of the development problems; but I believe, as did my predecessor, who was its author, that it is not possible to go further for the moment, because, though development has its manifest needs, there are also the realities of life such as they exist in Europe. I think it is a solution well adapted to the current situation. The memorandum contains a chapter headed "Stabilisation of Export Resources", which I personally tend to call by another name; and this chapter is important. My predecessor proposed that if any particular country in any particular year should suffer a fall in export revenue by comparison with preceding years, the difference should automatically be made good by Europe. Whether the cause be bad weather or world speculation the difference would be made good in any case. That is why I now call this chapter "Insurance against bad years". It is the same kind of insurance which you have when you damage the wing of your car, and which buys you a new wing. If there is a bad smash due to rain or (which is unfortunately the more frequent) to the absence of rain or to a fall in prices, the difference is made good. This is what one means by insurance against bad years. It is an extremely important point, because it enables you to know where you are in your development project since you know how much you earn and how much you can spend.

And what if there are several bad years in a row?

If the system is carried on for some time, it is obvious that the insurance will become less interesting after several bad years. But we must look things in the face. This is not a system to make it possible to continue growing crops or indulging in other forms of production which are not economic. One must face the fact that if there is a fall in export


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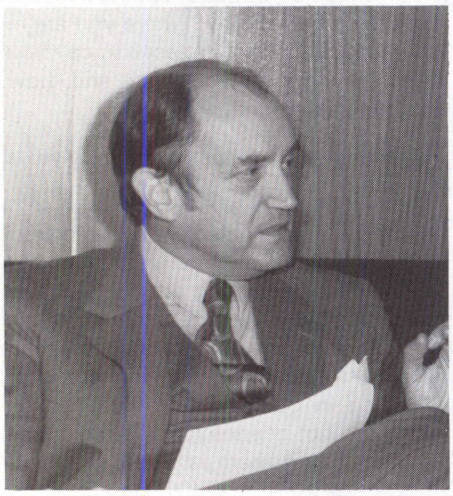
Commissioner Cheysson (left) talking with Alain Lacroix, Editor of Association News.

returns which lasts for three years, four years or even five, there must be some other cause besides chance or world speculation. The problem then has to be seen in a different light. It means that production has to be changed and the Community must of course take a hand. The European Development Fund exists for this purpose; and the government must mobilise the resources E.D.F. puts at its country's disposal to diversify its production. It is no part of our aim to change the normal economic trend, but rather to avoid sudden slumps in receipts which are apt to cause problems in these countries, which are almost insurmountable and prevent their looking ahead. It is important for all countries, great and



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small, to be able to know that next year they will not be earning less than a given amount.

The present Yaoundé Convention and the Arusha agreement expire on January 31, 1975. Looking back to the experience of the last negotiations and bearing in mind the much larger number of countries engaged in the present negotiation, there may be grounds for fearing the procedure will prove cumbrous and the negotiations drag on, as may also the ratification procedures. Do you not think that this is a difficulty which may have its influence on the content of the negotiation?

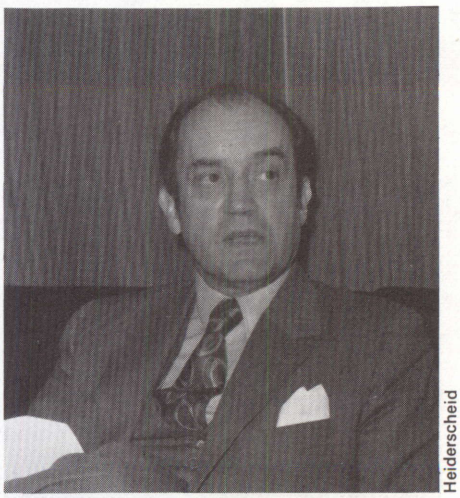
It will of course be less easy to negotiate with 43 countries than it was with 18 or 19. I knew from the outset, however, that this difficulty would be there in discussing the serious and fundamental questions; for after all, it is an entire continent which we have on the other side of the table. We thus have a collective entity which is, on the one hand negotiating a convention which will be in the interest of the different countries and, on the other hand, developing on this occasion the concept of african unity which has taken so strong a root in Africa. Thus, the negotiations about the convention do not have the making of this convention as their sole bargain; for they are also aimed to confirm this unity. Fundamentally it is one of the first tests of african unity and an extremely interesting one.

Surely this must be a special unifying factor between the english-speaking and the french-speaking countries?

Certainly.

You said, in a recent speech, that what is necessary is that such of the Third World countries as can, should be integrated into economic growth, whereas today they are only the suppliers to this growth. This remark seems to me to be fundamental, perhaps even revolutionary, underlining as it does, the need for a change from the existing situation. Would you care to develop your ideas about this?

I am following up an idea to which I am very attached and which has grown in my consciousness throughout the years I passed in the Third World. The world economic order was created by us, the industrial countries; and it is an economic order which does not give the developing countries all the chances they should have of securing their development. We must recognise the fact that these countries are trying to compete on unfair terms, for they are competing freely with countries of quite a different dimension, which are much better organised, have already written off the main part of their education infrastructure and constructions of every kind. I think that if we really believe these countries capable of development and think that we ought to help them develop, it is up to us to change these conditions of competition. This means that we must give them some degree of guarantee that they will have part of our market and integrate them, if I may so express it, into part of our



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market. In this way I say, that they are becoming part of our own development, since a slice of our own market is attached to them, so that a permanent link comes into existence between production in one or more developing countries and the corresponding market in Europe. The surprising thing is, that a number of developing countries express their highly praiseworthy spirit of independence by going to extreme conclusions, which make of them the absolutely rear file of the rearguard of economic liberalism. They do not want to be dependent on anybody, even marketwise; and for the sake of this they want to adhere to the law of the jungle, the law of unbridled economic competition; and they take this attitude just at a time while their resources are insufficient to fight in this competitive battle. I think that the integration of various parts of the economies of Third World countries into a wider circuit, which opens into the markets of the industrial world, is really the protection the producers of the Third world need at the outset. It is not a matter of making this production wholly dependent; certainly not, though it does provide some protection for some part of these lines of production, and this would give investment a chance of taking root, so that production could grow and spread its markets throughout the world.

Do you not think, following on what you have just said, that one of the best ways of integrating the Third world countries into economic growth, might be to send some of our own industrial activities into their countries? What do you think about this, and how do you

think it would be possible to overcome various difficulties which might arise at our own end, such as the attitude of european labour in the industries affected by such changes?

As you know, this is very much in line with my ideas, and follows naturally from what I said before. If you set up consolidated long-term exchange systems between any specific production sector in a Third World country, and the corresponding industrial market, it is obvious that the processing activity will find its home wherever it would be most economic; and in these integrated systems it will often happen that it would be more economic for the processing in question to be done oversea than in Europe. When I use the word economic, I mean this to cover all the elements in the analysis, not only the cost of the operation itself but also the surrounding circumstances in Europe and in the oversea countries. This must include the question of security of manpower supply; and you know that in Europe we are beginning to be extremely short of manpower. Also to be considered is security of supply for products which are becoming less abundant, and which will be much more easily secured if an industry is set up in the immediate neighbourhood of the supply sources, rather than hundreds or thousands of miles away. One thinks at once of oil; but oil is not the only commodity. Timber, for example, is becoming less plentiful, phosphates are scarcely to be found and there are many other items to add to the list.

You were speaking, too, of the consequences for european manpower. I know

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this is a matter on which the trade unions are very sensitive; but it is something of a paradox to harp on this theme at a time when we in Europe are almost everywhere in a state of over-employment, when we have in continental europe a fantastic number of no less than 9 million migrant workers and the figure is growing with alarming speed. I do not want to suggest that it is possible to create 9 million jobs overseas and no longer have a single migrant worker in Europe; for things are not as simple as this and every skill is not within the compass of every worker. I am, nevertheless, convinced that when we allow for the conditions of over-employment in Europe, there are whole industries which could be transferred without there being any loss of employment to Europe's own workers. Moreover, even in those industries where there is not a great deal of migrant manpower or workers coming from oversea, I am convinced that transfers would be possible and the corresponding european workers would at once find jobs nearly. Thus, so far as concerns the present employment position—one could even say the present state of overheating—which is the characteristic of western Europe, I do not think this problem is insoluble. I would say rather the opposite; for the transfer of production activities would make it possible to check the growing flood of migrant workers who find their way into Europe. We should be doing a service to everybody; for I do not hesitate to say—though I do not want you to misunderstand me in this—I think there are too many migrant workers. There are too many, because the position is beginning to set up reactions in Europe; there are too many, too, because it is rather a serious thought that here we have 9 million people out of their own background, taken away from their own cultural life and implanted in our background which is altogether foreign to them, and now their families are joining them there. Admittedly it is a good thing that they should have their families with them; but their severance from their own background is a serious factor, and I believe that in the long run we may set up a problem of whole uprooted populations. I consider this a serious matter, both from the social and from the cultural point of view. I think we have already gone beyond the reasonable limit; and in any case, even if we have not gone beyond it, the workers and their families add up to a population of 14 million, and we don't want to go blithely on towards 20 million.

On the threshold of the new year, «Association News» would wish to use you, as its instrument, in sending its good wishes to its readers. Are you able to tell them that you are confident of the future relations between Europe and Africa?

I would say, with some little vanity on the part of negotiators in the current business, that the two questions run together. I believe that if we should fail in this negotiation, it would be rather serious. I think back to the words of the Zaïre Minister who spoke on behalf of all the african countries in October; and in his concluding phrases he stressed the historic importance of the meeting of an entire continent with Europe, for this is a thing which has never been seen before. He said we were going to try to create a new pattern of relationships; and that if we should succeed it would be a model to the world. This I believe to be true. He also said that if we should fail when conditions are so favourable, the strains would grow more pronounced and the setback would be serious, because with so significant a failure, one might doubt the future relationships between Europe and Africa. I am in agreement with the whole of this analysis. We have got to succeed. And when one has got to do something and there are so many reasons for succeeding in doing it, I am sure it is a time in which one can and should express ones confidence. ■

EDITORIAL

SAHEL: a joint effort for a common end

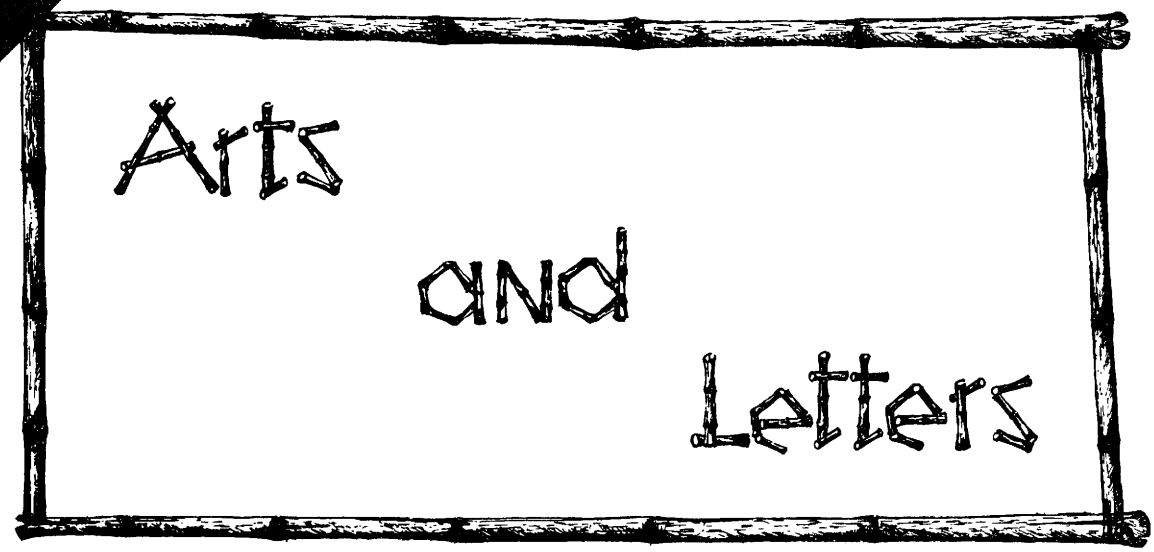
"The year 1973 was one of a splendid outburst of international solidarity." These were the words of General Sangoulé Lamizana, President of the Upper Volta Republic, during his recent visit to Europe. Almost at once, however, he added: "but the year 1974 will be yet another year of famine for the Sahel".

General Lamizana was speaking on behalf of the six Sahel countries most affected by the drought. At the Ouagadougou conference in 1973, he had been elected President of the Inter-State Standing Committee for combat against drought in the Sahel, and known for short as C.I.L.S.S. The committee has its headquarters at Ouagadougou; and the conference held there gave him a mandate to attend the General Assembly of the United Nations to plead on behalf of the six countries. The Sahel case, as now put forward, is partly a statement of facts and partly a set of proposals for the future. The facts cover the impact of the drought on the agricultural and pastoral economy of the region and on the populations. The proposals include the continuation of emergency measures to deal with the food requirements of the population and the cattle herds; a ten-year moratorium for the settlement of the external debts of the six countries; finance aid to offset their budget losses and provide action of national or regional interest in a variety of fields— hydraulic, reafforestation, dam construction, roads and waterways, a special Sahel fund, seed selection and distribution and a number of other headings.

There is one fact which provides a ray of hope and which constitutes an important political event. This was stressed by the E.D.F. representative at Ouagadougou. "In this disastrous situation" he said, "the Sahel countries have set up the C.I.L.S.S., and thus taken a further step towards the necessary positive regional cooperation extending well across the national frontiers. The picture which is taking shape is that of Community action. It is possible to believe —and there are facts in other fields which confirm the belief—that though this development stems from a very serious external event, its substance is much greater than mere comradeship in distress. Its foundation lies in an understanding of the need for solidarity, the need for joint action, the consciousness that the national interests of each individual country do not stop short at its frontier".

Though one geographical area is the most severely afflicted by the drought, it can be added that others are also concerned. Press accounts have recently, for example, made it clear that the drought has struck very severely in Ethiopia. It is for this reason that Association News, in its vocation as a unifying factor in all parts of Africa, is devoting the "dossier" in this issue to measures for dealing with the water and drought problems in the Sahel. Big international organisations, more especially the F.A.O. and the E.E.C. and the governments of industrial countries, are currently studying the medium-term and long-term proposals put forward by the african countries. This made it seem necessary to inform our readers at this stage, both of the facts and of the think-points in so vast and so complex a matter, though we cannot claim to treat the subject exhaustively. Our account begins by setting out the different points of the view—those of a head of State, of an engineer, an agronomist, a livestock specialist and experts at a recent congress. It then gives a few concrete examples of Community intervention. In conclusion, it seemed only fair to mention the limited, but very effective and humane action taken by non-government organisations, a few of which are mentioned by way of example.

The combat to control the water problem and to contain the encroachments of the desert, which is a phenomenon on the continental scale, will necessarily be long. The important thing is, that everybody in a responsible position should understand that in the medium-term, too, the emergency is very real.



"What's new? Molière" (Sacha Guitry)

Tercentenary of Molière's death

Dakar actors from the Daniel Sorano National Theatre commemorate the great French playwright

Molière died in 1673. Three centuries later his plays still draw full houses for every performance, just as they did in his lifetime. In this illustrious protégé of the illustrious Louis XIV, there was the touch of the genius and the visionary, which could not only lampoon the aberrations of mind and spirit, but in so doing, create characters which have become proverbial types, and will so remain for ever. In Brussels, during the african Fortnight (September 15-30, 1973) an international public was given the chance of appreciating the genius of Molière and the grandeur of his comedy, by the company from the Daniel Sorano Theatre in Dakar, directed by Maurice Sonar Senghor and Raymond Hermantier. The senegalese players gave a superb rendering of the "Malade imaginaire". As Maurice Sonar Senghor explains below, they adhered strictly to Molière's text, though they put in occasional touches which were specifically African; and they triumphantly vindicated the dictum of the belgian actor André Debaar, that "Molière belongs to every race, to every country and to every people".

But why did Maurice Sonar Senghor and Raymond Hermantier decide to play the Malade imaginaire? Was it perhaps that the play is so good that it is a first-class exercise for young comedians? or were they trying to show our contemporaries, and our world of superfluities, the truth in Molière's recommendation that we should never run to excess, but keep within the bounds of common sense and human nature? Maurice Sonar Senghor and Raymond Hermantier explained their choice in an interview they gave to belgian television.

"When I began my career in the theatre" said Maurice Sonar Senghor, "I did not specially appreciate Molière. I had learnt him by the yard at the Lycée in Senegal and I found him dull and tiresome. Later on, however, when I went to Paris and attended the Lycée Buffon at the end of my secondary studies, I would go to the Salle du Luxembourg, and this was where I discovered Molière and really learned to love his work. When I was given the management of the Daniel Sorano National Theatre in Dakar, Hermantier and I had a shot at handling the great classics. We had a good look at classics from all over the world; and some time ago we put on a Macbeth. After this, when it came to the Molière tercentenary, we found the Malade imaginaire irresistible".

There were other reasons, too, Raymond Hermantier explained. The company needed to discover for itself all the possibilities in the great authors who have become universal. Moreover, early in the company's history, there had been some initial work on Molière, beginning with the "Médecin malgré lui". There is a rather free adaptation of this piece; and I think that in this the Médecin malgré lui had become a figure of fun, but nevertheless a false figure. Our company was then in its very early stages and it toured this show in little villages and little theatres. With this experience behind us, Maurice Sonar Senghor decided on a dif-

Info – Sénégal

The admirable Argan—Sérigne Ndiaye Gonzalès

ferent course and chose the Malade imaginaire, because this piece has a special message. The overriding reason, however, was that we wanted to pay tribute to Molière; and in addition, the company needed to discover new disciplines which, whatever one may say, and I am sure that André Debaar knows this well enough, a great deal of very strict discipline is needed in playing Molière, especially in his comedies. It was thus an exciting experience for the company.

Maurice Sonar Senghor and Raymond Hermantier, however, do not intend the senegalese theatre to grow into a diversion only for the more cultivated people.

Our real thought is that all this work must be shown to the great bulk of the senegalese populations. We have a highly important job to do. We shall go into regions, we shall go into the villages; and in our own national languages we shall be talking to our own public. As you know, 80 % of this public is unfortunately still illiterate and we must talk to it in a language it understands. This of course is why we use the languages of our country. We have still scarcely made a beginning on the great classics, more especially Molière and Shakespeare; but we have undertaken a job of work which we have not yet finished, and we have every intention of continuing on the same road. Hermantier and I are thinking in particular of translating "l'Avare" and taking it round for village shows. As you will see, it is a large-scale task Hermantier and I have set out to tackle, and we are still in its early stages. We regard the work we put on in Brussels as being only a stage in our journey. We shall go much further. We have of course actors who have grown accustomed to some degree of discipline, and it is Hermantier himself who puts them to work every day. He is keenly aware of the importance of this; and I hope we shall one day be putting on the great classics in the villages of Senegal.

Lucien Pagni: *Apart from the innate talent of your actors, how do you explain the perfection of their work in playing the Malade imaginaire? Is there some resemblance between the defects of present-day african society and european society in 1673?*

Yes, I think you're right. Though there were difficulties, each of our players gives a reasonably good interpretation of his part. We got over the difficulty of keeping strictly faithful to Molière's text; and we felt on familiar ground, because of another piece we had already played in Dakar. This was a piece denouncing some of the blemishes in senegalese society, showing up the chicaneries of everyday life, dealing with developments in Senegal and talking in precise terms about the multiplication in the issue of banknotes and various kinds of corruption. There were thus misfeasances with which we were ourselves confronted and are confronted at present; and we do our best to make people aware of them, because we think it part of our duty to denounce evils of this kind. Moreover, it had a good deal of effect; for a number of people made trouble about the piece I mentioned and tried to have it stopped. It was, however, closely examined by the authorities in Senegal and their verdict was that it should not be prohibited. On the contrary, they said, it should continue on the stage because it defends the very ideals which were specially dear to them. It is particularly encouraging to continue the show in the smallest of villages.

As with the Malade imaginaire, M. Hermantier explained, the subject matter is human society and the public reaction is in this sense rather significant, though for Molière it is exceptional.

As you have seen, the reaction to Molière is exceptional, or even more. Everybody comes to see him and the public is very diverse and very simple. I come back to what M. Pagni said about a work which denounces what I will not call vices, but various shortcomings in our society. These faults, as you know, are no more peculiar to Black Africa than they are to Europe or to China, they belong to the world at large. In every country in the world the domestic tyrant exists. In every country there are quack doctors and valetudinarians, there are girls who resist being forced into marriage. This is the real proof of the genius of Molière; and when the africans come to interpret it, they say, that these are things they find at home just as the chinese say the same thing. **The simple fact, once again, is that Molière holds up to us the mirror of genius and thus suggests that we should try to be a little better. In seeing the Molière characters brought to life on the stage, one must take from it a message of peace, brotherhood and humility.**

In the Black african interpretation, however, there is something else which is important, and which is contributed by the players. I think André Debaar was aware of this. The actor keeps, in a sense, a certain distance from the character, so that, for example, the Argan always has a nod of understanding between himself and the public. It is as if he were saying: "I am showing you the sufferer from imaginary sicknesses, but I know very well that he's an ass and a rogue, and a domestic tyrant and I don't believe in him at all. Laugh then, and keep yourself amused by the way I portray him".

There are times, too, whem the effect is admirable, especially when one remembers the work of a dying man. The important thing is that there are times

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Maurice Sonar Senghor, Director of the Daniel Sorano Theatre (centre) with the belgian journalist Georges Wielemans (right) and Lucien Pagni in the belgian television studios...

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...Raymond Hermantier (right) Production Adviser at the Daniel Sorano Theatre with André Debaar, the belgian actor

when the actors take hold of the characters they represent and are, as it were, possessed by them. I think this is a special discipline purposefully created by the actors themselves. There was, for example, the Toinette, a really imposing woman, who is really like the important servant in a big house, who becomes part of the family, who is loved and listened to and is the real mammy. One tries to develop the charm and understand at the same time why this woman can act with cruelty towards a family in which she is not accepted. Time and again actors will don the masks of their characters and then slip them aside for a moment; and the public in Black Africa is aware of the split personality. Whether you be playing a piece at Zinguinchor or at Casamance, it produces a really enthusiastic reception.

Lucien Pagni: *Picasso once said he knew nothing of negro art. Yet, after his death, or even before, it was established that some of his pictures, such as the "Demoiselles d'Avignon" had the style known as "cubism" which was, and still is his glory, and were inspired in him by african art. There is now in Africa a certain literary and artistic movement which consists in seeking to get back to sources and almost flouts the so called western culture. In parallel with this, men of the theatre such as yourselves, do not hesitate to play the great classics of the west. Is your company's interpretation of Molière a contribution to the african theatre? Can one talk of an african renaissance in the sense both of a return to traditional art and ideas and of the opening of the spirit to modern tendencies?*

M.S. Senghor: In our work there is the research aspect of the theatre. This means that we are not trying to make the theatre into a closed shop, or something which leads us to fall back entirely on ourselves. I regard it as necessary that we should be open to world, to modern, theatrical tendencies; and it is in this spirit that we have ventured into the universal classics. This is the main idea behind these shows. I think it is a good thing that we should move increasingly towards some form of specifically african drama; and why should we not be able to carry this out in the very framework designed by the good classical authors.

Lucien Pagni: *Do you think that the reaching of some degree of artistic perfection necessarily requires borrowing from the classics?*

M.S. Senghor: No, not necessarily. As you know the traditional african theatre differs materially from the rules and conventions governing the great international theatre; and I believe that though we have felt a certain inertia in our theatre in certain periods of our existence. the development of the african theatre has, for reasons which are still unknown, been in some degree discontinuous. Now, however, I think we must make up for lost time. We must climb to the level of great international productions; and how can we set about it? We shall only be able to do it if we take to ourselves the techniques which are accepted and proven in the theatrical world; and Africa can, in the use which it makes of these techniques, make a real contribution to the development of the world theatre. I have not said, however, that we must have recourse to the classics to develop a modern african drama. I think, on the other hand, that both sides can help one another and what we shall have is a kind of marriage. I see, indeed, a certain complementary character between the african tradition and the western techniques; and I think this is the way that we shall be able to arrive at an up-to-date african drama. ■ **L. P.**

Info – Sénégal

(Left to Right) Jacqueline Scott Lemoine (Toinette), Fatime Diagne (Angélique) and Badou Casset (Cléante).

* * *

Manu Dibango at the Apollo

How, after 17 years in the shadows a Cameroon saxophone player awaits to become famous

JAZZ

— I would like "Soul Makossa".

— Sorry, Sir, it's sold out. Come back in a few days. "Soul Makossa" is in the heavy demand and our stocks are exhausted.

These were the comments one could hear a few months ago at some of the larger record shops in Brussels, in Strasbourg and even in certain districts of Paris. Yet, the author of this sell out which made a spectacular entrance in the jazz world was neither one of the big names of modern jazz nor a musician known by the public at large, but of the patrons of the "Chat qui Pêche", a Paris cabaret where he played for a long time. Who is he? His name is Manu Dibango.

He comes from Cameroon. He is tall and is 40 years old. He lives in Paris where he arrived at the age of 15 and studied both the usual subjects and music, the latter was then his favourite hobby. Born in Douala (a region of the Cameroon coast-line, mainly protestant), Manu Dibango, at an early age, was a choir-boy in the Church of his district. It is to this agreable man, with pleasant manners, who has remained modest in his success and whose charming secretary, Mme. Le Couviour, speaks quite freely of his simplicity, that I asked to explain his irresistible climb to celebrity.

"I cannot explain the success of "Soul Makossa", he answered. *"I try to work"* he adds modestly *"so that the music I compoze becomes as widely known as possible"*. Thanks to "Soul Makossa" it is no longer Africa alone but Europe and America which, for the first time, are enthralled by the music of an African who has not studied at a College of Music. Now Manu is well placed in several European hit-parades. But his fame comes from the U.S.A.

Nisak

where Manu Dibango, wins 20 points in one week in the famous Billboard magazine, the most prestigious "Who is Who" of American musicians. Harlem lives for "Soul Makossa" and the Americans discover in Manu a new idol they have nicknamed "Makossa Man". Contracts offered amount to tens of thousands of dollars. Atlantic, the firm which launched among others, Otis Redding, Aretha Franklin and Ray Charles, is the winner. Manu Dibango flies to the U.S.A. and will be the first African jazz man to appear at the Apollo, this monument to negro-american music and to take part in television shows. He is pleased about this and very happy. Although he modestly claims that it will be necessary to wait and see if he has definitely won his ticket as an international jazzman *"this is even more difficult"* he adds. Manu Dibango feels a certain pride, well earned, *"to have the opportunity and the privilege to appear, as the first African musician, at the Apollo, the shrine of current black music."* This *"no longer concerns him"*.

How has this Cameroon saxophonist living in France found fame in the U.S.A.? Manu Dibango thinks that it was perhaps a "communion of mind" with the Black Americans because *"perhaps through what I do"* says Manu *"they find something of their lost heritage"*. But *"there is also the fact that I sing in African dialect, in a way that pleases their ears, and which is, therefore, close to them"*. Of course, *"there is also the rythm, the voice, african with a certain colour" so that "Soul Makossa" is near to what they do yet a little strange"*.

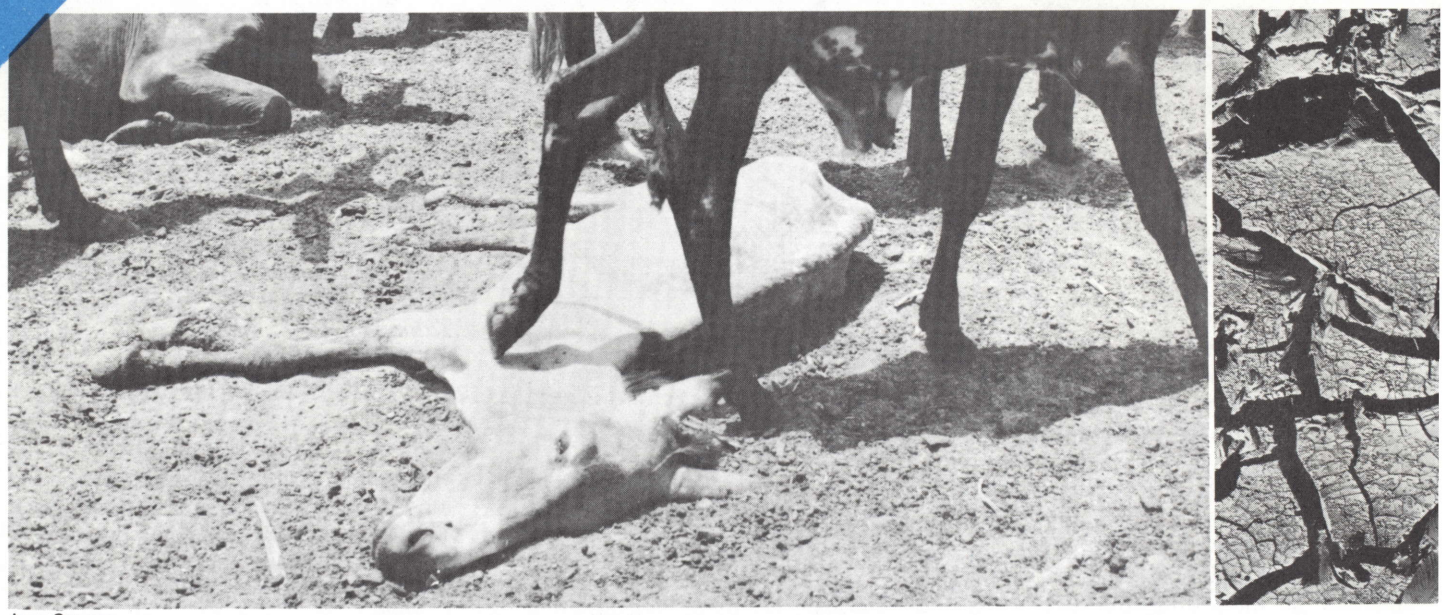
Manu Dibango's triumpf, after his shattering revelation last summer was not long awaited. With already more than 1½ million records sold and a new 30 cm with the revealing title "Makossa Man", the former accompanist of Dick Rivers and Nino Ferrer has also signed on at the Olympia, the last step towards an irresistible ascension pursuid over almost 20 years.

Already called the "King of the Soul music", there is no doubt that if Phyl Garland should rewrite her book "the Sound of Soul", Manu Dibango would feature among these, next to James Brown, Aretha Franklin, John Coltrane, Otis Redding, Ray Charles, Ike and Tina Turner, etc. ■ **Lucien PAGNI**

Nisak

DOSSIER

Water and drought



Jean Guyaux

I. Points of View

The Head of State: Position and prospects

by Diori HAMANI
President of the Niger Republic

When the President of the Niger Republic came to Brussels for the African Fortnight, he gave an important lecture on drought in the Sahel. He described the position as it now is, and gave a lucid and convincing exposition of future prospects and the measures to be taken.

The great drought which has fallen upon the part of Africa known as the Sahel, began in small instalments, but finally descended with stunning force. It dates back to the rains of 1967, but it was those of 1972 which showed the worst shortfall. They stand comparison with 1913, the ill effects of which continued until 1921. In the southern part of Niger, near the nigerian frontier, the old people still speak of this drought and the ensuing famine as "Kakalaba" which means "there is no more".

The countries of the West African Sahel most affected by the drought are Mauritania, Senegal, Mali, Upper Volta, Chad and Niger.

The state of drought has continued for nearly 6 years; and its disastrous effects have been felt in greater or less degree by many neighbouring countries on the northern, southern and eastern side of the Sahara. The rainfall has been less than normal in the northern parts of the coastal countries, such as Gambia, Togo, Dahomey and Nigeria. On the north and east, too, the rainfall was deficient in 1972, and 1973 is a year of exceptional dryness. The countries affected are those around the Sahara and the libyan desert, Egypt and Nubia, the Sudan and Ethopia.

The account I can give here is necessarily incomplete. I shall limit what I have to say to the sahel countries of West Africa.

in the Sahel

Afrique Photo

Jean Guyaux

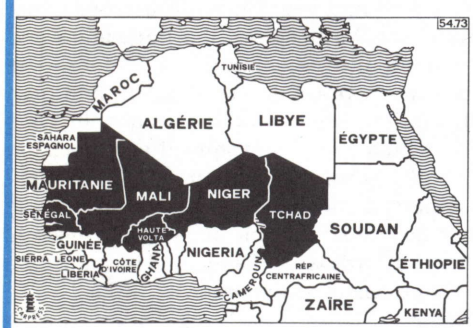
Geography of a drought

Little is yet known about the natural mechanisms which lead to drought in tropical areas. The most we can do is note the alternation of successive wet and dry periods.

- *In 1913 there was an extremely dry period comparable with that of today.*
- *Between 1941 and 1945 there were further periods when rainfall was not abundant.*
- *After 1950 there was a wet period, which reached its peak in 1961.*
- *Since 1965, there has been another dry period.*

In 1972, it was noted simply, that the presence of a mass of air at high pressure over the Sahara at the end of the spring, had blocked the northward passage of the centres of low pressure which generate the rainfall.

— A drought on the present scale recurs approximately every 50 or 100 years. Unfortunately these "pseudo cycles" are too irregular to permit of any close forecasting. Over long periods the relationship between sun spots and the sequences of dry years seem to be a matter of chance.



EXTENSION OF THE CURRENT DROUGHT IN AFRICA

— The regions in which rainfall has been very short for several years past (in general since 1965) form a strip of varying width which stretches right across Africa between the 12th and 15th northern parallels, taking in Dakar, Bamako, Sarh and Khartoum and extending to the Red Sea. This corresponds approximately to the "sahelian" and tropical regions.

— The drought strip also continues into the central area of India, which has been suffering from increased drought in recent years; and the same phenomenon has been noted in north-eastern Brazil.

— It is to be noted that the drought periods habitually affect great areas of different countries in the same latitudes (in 1958 it was the equatorial zone); but the severity of the drought of 1972-73 lies not only in its intensity, but also in the large number of countries affected.

CHARACTER OF THE DROUGHT IN AFRICA

A distinction is drawn between two kinds of drought. On the one hand there is drought which only affects the retention lakes at the dams and the deep-level natural phreatic reservoirs, but leaves enough surface water for ordinary cultivation. Secondly, there is total drought, when even the flooding of the great rivers is feeble, when there is no flow of water in the side streams, when fishing is seriously checked, when the water reserves for cattle and farming have run dry. It is the latter calamity from which Africa is now suffering.

As always happens in such cases, the beginning of the rainy season in 1972 came early and was already in progress in June. Very soon, however, the rainfall was seen to be insufficient and irregular.

The chief rivers had already suffered from the successive droughts since 1965; and now their annual flooding was greatly reduced.

COULD THIS NOT BE FORESEEN?

We must bear in mind that our atmosphere is a thermic machine, and its motive force is the energy of the sun, which is a constant, at any rate if we think of it in terms of a number of generations of humanity. There are some scientists who believe that there may be variations in the solar constant; but the pace of these would be measured in terms of geological epochs. Unfortunately meteorology as we know it today is barely 50 years old, whereas the age of the earth is some 4.7 billion years.

(From France Catholique-Ecclesia) quoted by: "30 jours d'Europe".

The present position[1]

First of all I must explain what is meant by the Sahel.

The word means "the edge"; and in this case it means the southern or northern edge of the great african desert formed by the Sahara, which covers an area of 9 million sq. km. Geographically the Sahel is usually taken to mean the whole region lying south of the Sahara between latitude 14° north and 20° north, and stretching from the Atlantic coast of Mauritania and Senegal to the sudanese frontier of Chad—i.e. between 10° E and 13° E. This area covers some 2.5 million sq. km, which is almost half the total area of the countries concerned.

The countries affected

I should like to give a brief account of the countries affected. In March 1973, they held a conference at Ouagadougou, capital of Upper Volta, and set up an inter-State committee to combat the drought.

Mauritania covers an area of 1 085 000 sq. km, has a population of about 1.5 million. Until recent years its activities have been mainly pastoral. Geographically Mauritania is both a country of the Maghreb and of Black Africa; but it is primarily in the Sahara country that the herds of livestock are estimated at 2.1 million beef cattle, 4.8 million sheep and goats; and it is here that they have been killed off at the rate of 80 %, and in some localities as much as 100 %.

Senegal covers an area of 197 000 sq. km, but has a population of 3.8 million. Its economy is predominantly agricultural-pastoral, supported by a diversified industrial structure. The Sahel and Sudanese climate does not seem to have the advantage of the Atlantic currents and cloud formation, except perhaps in the Casamance, which is part of the Guinea zone. The soil products are groundnuts, cotton, cereals (millet, sorgho, rice, maize) and fruit and vegetables. It is a land of moving flocks and herds, which was formerly much frequented during the rainy and the cold seasons. The valley of the Senegal river is not yet fully exploited. The senegalese herds are estimated at 2.75 million beef cattle and 2.8 million sheep and goats. It has lost in the drought about 50 % of these.

Mali is second only to Chad in size among the countries affected. It covers an area of over 1.2 million sq. km; and of its population of some 5.3 million, about a million are nomadic or semi-nomadic herdsmen of Touareg or similar origin, arabs and other tribesmen who live in the Sahel area with their herds and regularly migrate into the well-watered pastures in the lower delta of the river Niger and around the great lakes. The mali economy is predominantly agricultural-pastoral. The hydro-agricultural schemes of the Niger Office, designed in 1919 and carried out in the 1929-58 period, are the most important infrastructure schemes in the rural modernisation of the Sahel. The mali herds are also the biggest in West Africa. They are estimated at 5 million beef cattle and 10 million sheep and goats; and through the drought in the Gao region, 80 % of these have been lost. In the other sahel regions the losses range around 50 %. In the sudanese and guinea regions the herds do not seem to have been unduly affected by the drought.

Upper Volta covers an area of 274 000 sq. km and has a population of 5.8 million, which makes it the most populous of the countries affected by the drought. Here again the economy is essentially agricultural-pastoral. The soil products, apart from subsistence crops, include groundnuts, coffee, tree-butter, fruit and vegetables. The Upper Volta climate, like that of Mali and Senegal, is sahel-sudanese in the south-western part of the country. The herds are estimated at 2.6 million beef cattle and 4.1 million sheep and goats; and in the northern part of the country the losses range from 50 % to 100 %. The whole territory of the country has been declared to be affected by the drought, partly because of the massive exodus of pastoral populations from Mali.

Chad has an area of 1.28 million sq. km, and a population of over 3.51 million. The characteristics of Chad recall, alike, the Sahara, the Sahel and the more rainy Sudan. Its economy is predominantly agricultural-pastoral; and the stock-raising is exclusively in the hands of a nomadic and semi-nomadic population in the northern and eastern part of the country. There is a flourishing fishing industry in Lake Chad and the rivers Chari and Logone. The Chad herds are estimated at 4.7 beef cattle and 4 million sheep and goats; and in the northern part of the country the drought casualties were 100 %.

Niger, like Mali, Chad and Upper Volta, is a continental country lying between the 12th and 23rd northern parallels and between the Greenwhich meridian and 15° E. The nearest of its frontiers to the Atlantic is 1 000 km from the coast.

The area of Niger is 1 189 000 sq. km, of which half a million sq. km are desert with a rainfall of between zero and 100 mm per annum. The sahel-sahara zone covers 450 000 sq. km, and its annual rainfall is between 100 and 350 mm. It is exclusively a pastoral country. The sahel zone proper covers 200 000 sq. km, or 16 % of the country's total area. It is a meeting point for nomadic and semi-nomadic tribes and herdsmen. The rainfall is between 300 and 500 mm per annum. In the extreme south along the Nigeria and Dahomey frontiers, the sahel-sudanese area, where the rainfall is between 500 and 850 mm annually, and which covers 8 % of the country's total area, conditions are favourable for cultivation.

The Niger population is estimated at 4.5 million. The economy is based essentially on agriculture and stock-raising, which depend wholly on the rainfall and the hydrographic resources. This explains why the country was so extremely vulnerable to the disaster caused by the long drought which the country has experienced since 1967-68.

The agricultural production consists of subsistence crops—millet, sorgho, rice, niébé earth-pea (vouandzou), fonio, manioc, potatoes, corn, fruit and vegetables. In a normal year the subsistence crops cover the needs of the population and leave a surplus for export into neighbouring countries. The cash crops grown for export are groundnuts, cotton and gum arabic. Stock-raising was formerly among the biggest in West Africa and the animal population was estimated at 4.2 million beef cattle, 2.15 million sheep, 5.8 million goats, 360 000 camel-types, 170 000 horses and 370 000 donkeys. Of these herds 80 % were owned by nomadic, semi-nomadic and recently settled populations, but the herds were maintained by herdsmen and kept moving from one pasture to another.

(1) The sub-titles are added editorially (Ed).

Naud

A well in Niger operated by the Bororos nomad herdsmen.

Effects of the drought in Niger since 1967-68

The drought in Niger since 1967-68 has had disastrous effects on the country's economy and more especially on the rural economy. The rainfall has been irregular and very small and, with the prolonged drought in July and August, all the subsistence crops and export crops suffered. There has been no exception to this; and in all parts of the country production has barely reached 50 % or 75 % of the normal rates. In some localities nothing has been harvested since 1967. Throughout the country the livestock has suffered from the shortage of water and the lack of pasture, and the losses have been serious. It is estimated that 550 000 beef cattle died in 1968 as well as 600 000 sheep and goats and 36 000 camels. In 1970-71 the losses were less severe but they increased again in 1972-73. In the departments of Tahoua and Agades, where the cattle population was greatest, the losses have been in the 80 to 100 % region. The affected population has had to flee from its home region to find a better climate, because the wells had dried up on account of there having been insufficient rain to feed the underground pools. Taking part in this exodus have been more than a million shepherds and non-migratory populations from Niger, and they have been joined by the afflicted populations of neighbouring countries. The disaster seems to have been even worse than that of 1913-22; and the Niger government has had to take emergency safeguard measures both for the human beings and for the cattle. It would take too long to give a description of all the rescue operations; and indeed, some of them have been recorded by television and in the international press. Thousands of women, children and old people would have died of thirst in the great open spaces of the Sahel, if it had not been for our action in grouping them at strategic points accessible to the tanker trucks and the daily distributions of water and food. Some of the assembly points, too, were distant and difficult of access; and in these cases the distribution was made by parachute. With the return of the long-awaited rains, the difficulties have grown greater. I should mention that for some weeks we have been using artificial rain by cloud precipitation to keep at bay the threat of famine which overhands our populations. We are far from having reached the end of our nightmare.

I should now like to say a word about the aid Niger has had in 1972-73 as part of the campaign against drought and famine.

Aid from the international community

Niger, in common with the other five countries of the Sahel, lay under the threat of famine and appealed to the international community for aid in saving the population and the cattle.

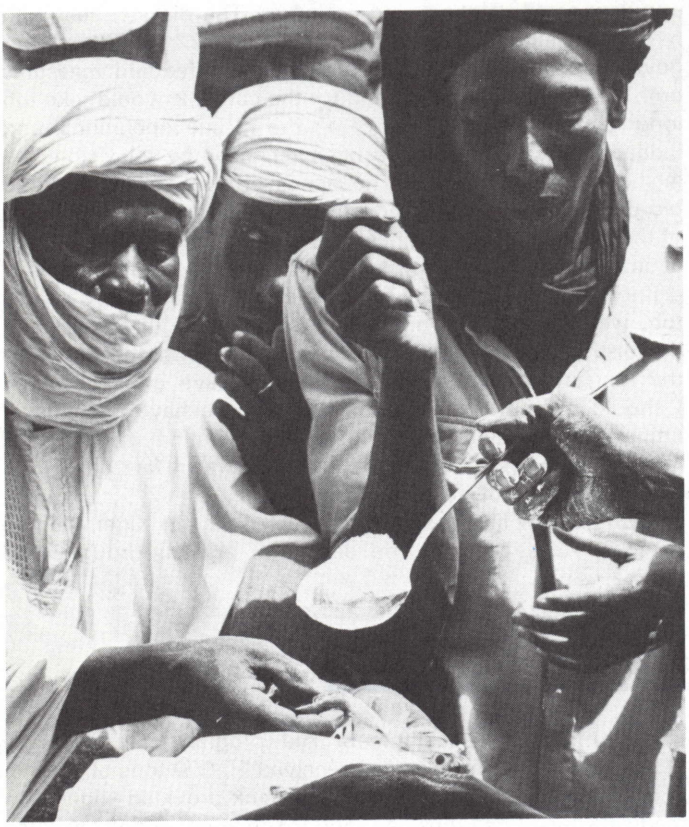
The aid from the United Nations systems came to us through the F.A.O., as part of the world food aid programme, and also through the UN Development Aid programme. Under the world food aid programme we received 10 000 tons of sorgho. U.N.I.C.E.F., W.H.O. and the World Bank provided Niger with medical supplies, serums and food for children. Funds collected by way of generous gifts were used to buy vehicles for food

and water transport and also for cattle protection purposes. With these funds, too, it was possible for F.A.O. to make in hand the air transport of food to the more distant departments

The E.E.C. used its powers under the Yaoundé Convention, responding very swiftly to Niger's request for emergency aid. It put at my country's disposal 2 600 tons of powdered milk, 15 000 tons of maize and transport facilities as far as Niger; 5 500 tons of cotton-seed for cattle feed, 2 000 tons of selected seed, serums, sanitation equipment, vehicles designed for cattle health protection and a contribution to the national investment budget for aid to the livestock industry.

As long ago as the 1967-68 phase of the drought the E.E.C. had helped with a gift of 10 000 tons of wheat and 3 300 tons of flour. The officials of the E.E.C. were anxious to demonstrate their own solidarity with the Niger population and sent 10.5 tons of powdered milk.

The bilateral aid, too, was considerable and very varied. It consisted of food, medical supplies, technical material, transport material, technical aid and money contributions, especially for the national solidarity Fund of the drought campaign. A great number of countries, developed and still developing, thus came to our aid in seeking to mitigate the burdens of the combat. I should like to take this opportunity of repeating the thanks I have already expressed elsewhere to all these countries which brought us their sympathy and support. In Europe I would mention, especially, Belgium, France, Federal Germany, the Soviet Union, Great Britain and Spain.



Salgado Junior

Powdered milk is a useful addition to the diet.

Since I am now in Brussels, I should like to say a special word about the belgian aid. Proportionately it was the biggest coming from Europe, and was greatly appreciated by the Niger population. By way of bilateral aid, the belgian government put at my country's disposal aircraft and military trucks with their crews, which found their way across the whole territory of Niger in all weathers. Private organisations in Belgium, too, were outstanding in the help they sent us, which included food, medical supplies and medical-surgical equipment and health care for mothers and children. The people of Niger will not forget groups such as the Princess Astrid Expedition, the caravans of belgian youth, the Leopold Philanthropic Club of Namur, the Socialist Friendly Societies, the Land of Hope organisation and many others.

Apart from the countries I have mentioned, we had help from countries in Asia, in Africa, in Latin-America and in North-America—from the United States and Canada from Saudi Arabia, Kuwait, the Federation of Emirates, the Peoples' Republic of China, Japan, the Republic of Korea; from Nigeria, the Ivory Coast, Zaïre, Gaboon, Algeria and Libya.

My most sincere thanks, too, and those of my country, go to all the countries whose aid came to us through the United Nations. These included Australia, Denmark, Italy, the Netherlands, Norway, Sweden, Jugoslavia, Switzerland and others.

I would say a special word of thanks, too, from my own heart and from that of the peoples of the Sahel, to the crews of all those aircraft whose so active intervention saved thousands of human lives.

Apart, too, from the bilateral aid, I want to say a special word of thanks to so many private individuals, to associations of youth, religious organisations, philanthropic bodies and non-government organisations. In this connection I would mention, more especially, the much valued help we had from belgian youth. My special thanks go to the members of the Princess Astrid expedition, to the caravans of belgian youth. Their friendly gesture, their self-denial, their spirit of brotherhood and solidarity, are ample proof of the spirit and care young people of today are bringing to the world of tomorrow, and that their active campaign against suffering and poverty, wherever it may be, will always contribute to allaying the unhappinesses and consequences of all the difficulties with which our peoples may be faced. Belgian families, and Belgium itself, can indeed be proud of these young people who did not hang back for a moment in coming to Niger and helping our people on the spot in conditions which were often extremely difficult. In the name of the whole people of Niger, I wish to offer my most sincere thanks to these young Belgian who brought my afflicted people food, medicine, medical care and moral support. I would thank them for their courage, for their spirit of sacrifice, for their great sense of humanity. If I have specially underlined the part which was played by the young, it is because this is such a comforting fact in this world of contestation, violence and racial strife; and it is good to know that, despite the many negative factors, the young people over the great part of the world, and more especially in your country, are so deeply humanitarian.

The outlook and the action to be taken

With your permission I should like now to talk of the outlook and the action which must be taken to restore the Niger economy and protect its people from disasters such as the drought which has shown us the fragility of our economic system.

In my speech at Ouagadougou, I recalled that the Niger delegation had submitted its desires in the matter and thought it would not be useful to comment at length. They are contained in a note drafted last July and I repeat, this must be considered as a simple exploratory measure, a line to be taken in technical, economic and financial research. On this basis a first step has been taken **to determine the action which has to be put in hand, and estimate the cost of carrying it out.**

I think I should recapitulate the results of this second approach:

1) **Water.** Whether it be a question of rainwater, surface water or underground water, Niger proposes to develop 2.5 million hectares by irrigation from 2 500 wells, to be sunk to an average depth of 300 metres. This project will cost about F-CFA 50 million. For a number of jobs which do not call for advanced technology and which can be carried out with such tools as are to hand and abundant though non-specialised manpower, we envisage using 10 000 men for 8 months a year for 5 years, involving a cost of F-CFA 76 million. This will be used for dam improvements, deepening natural reservoirs, raising banks and draining slopes.

2) **Reafforestation:**

— development of natural gum plantations: 400 hectares in 3 years; cost of F-CFA 78 million;

— development of artificial gum plantations: 1 500 ha in 4 years; cost of F-CFA 156 million;

— wind-screening for crops: 1 000 ha in 10 years; cost of F-CFA 80 million;

— land reconstitution and improvement by planting of accacia albida: 50 000 ha in 10 years; cost of F-CFA 20 million.
The total cost under these two heads is F-CFA 410 million

3) **Protection of animal life**

Apart from the F-CFA 200 million spent annually on disease protection, Niger has adopted the following projects:

— reconstitution of herds by the purchase of heifers (F-CFA 800 million) and the setting up of two breeding centres (F-CFA 800 million);

— cattle-food manufacturing facilities: (F-CFA 500 million);

— setting up of two ranches of 10 000 head: (F-CFA 1000 million);

— pasture improvement of irrigated area of 20 000 hectares costing (F-CFA 1 100 million);

— domestic pastoral improvements over 10 years (F-CFA 800 million);

— rescue posts and pastoral centres; (F-CFA 500 million);

— bird life (F-CFA 50 million);

— small ruminants (F-CFA 160 million);

— slaughter-houses of 3 000-ton capacity (F-CFA 300 million).

The cost of this whole programme for animal production can be estimated at F-CFA 5 310 million.

Over the whole field Niger estimates the total cost of the action to be undertaken throughout the country, in relation to water supplies and the combat against drought and desert encroachment, at **F-CFA 500 billion over a period of 10 years.**

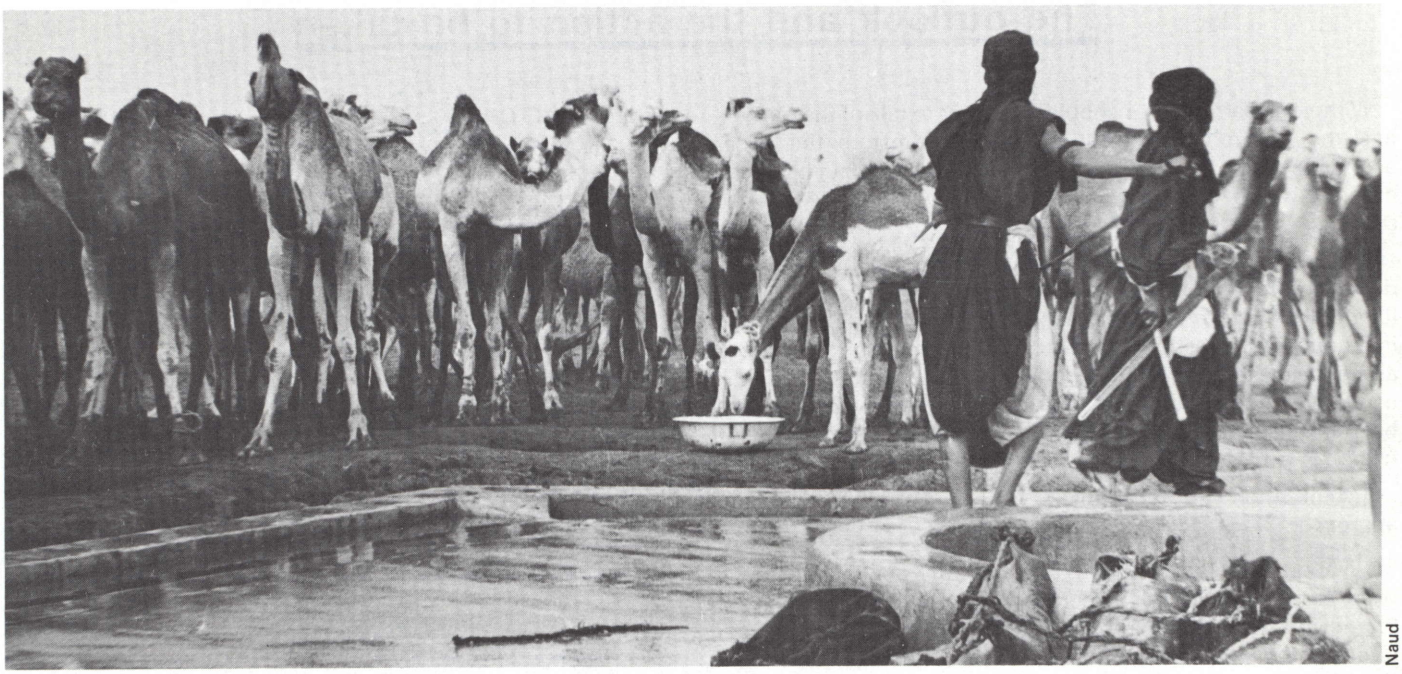
The other countries of the Sahel area between Dakar and Port Sudan are likely to be putting forward similar requirements to those of Niger.

The aid must be quick, big and lasting

This gigantic campaign to deal with water problems, drought and desert encroachment needs to begin at the first possible moment and must be continued resolutely for years ahead. The sahel countries have laid down the general strategy and its financial implications are impressive. We can no longer think millions of CFA francs but in billions or tens of billions.

It is quite obvious that the sahel countries, either individually or collectively, cannot carry through so long and ambitious an undertaking. They cannot reasonably contemplate putting it in hand either in the immediate future (because of the enfeeblement and economic distress which is now their lot) nor in the reasonably early future because of the slow and modest progress which their national product is making. Another reason is the disastrous way in which the terms of trade are moving against them, which is an addition to the national constraints inherent in their climate and their geographical location.

It thus becomes obvious that the precarious and often tragic position in the Sahel cannot be checked, and eventually reversed, without aid which will have to be on a **massive scale and continue into the future.** This of course does not mean that the sahel countries themselves will take no active part in the effort which has got to be made. It is a fact worth noting in this connection, that for nearly 8 months of every year there are millions of able-bodies sahel peasants who are available for work and who now find their way into jobs of various descriptions in the coastal countries. It is also a fact that only a very small part of the external aid which finances development projects—in fact less than 10 %—is actually paid out in wages which activate the economic circuits of family, region and the nation at large. It is also a fact that the slogan "time is money", so often heard in the industrial background and at high economic and technical levels, is reflected in the use of powerful machines which are far from providing full employment and decent incomes for the producers themselves, and thus from



Well at Teggui N'Tecem (Niger).

satisfying one of the most pressing needs of the african countries. Rather than use bulldozers, graders, caterpillars and the rest for a few months, or perhaps only for a few days, would it not be better as things stand at present, to come closer to the economic and human facts by spreading the road construction, or the dam building, over a year, using instead, human brawn and such tools as may be available? Before ever we can attain the level of countries which are highly industrialised, we have got to choose between feeding engines and feeding men.

I should like to come back to what I said just now, about the impressive scale of finance which will be needed for the main campaign to deal with water, drought and encroachment problems. For Niger alone, the finance needed is about F-CFA 500 billion over 10 years (or F-CFA 50 billion annually).

By way of comparison these figures must be set beside the actual external aid in loans and subsidies of which my country has had the benefit since it became independent. The total in 1968 was F-CFA 32 billion; by 1969 it had risen to F-CFA 39 billion, by the following year to F-CFA 42 billion and in 1972 to F-CFA 55 billion. The average increase is thus around 5 billion CFA francs annually. If we were to apply each year all the resources of external aid for waging the war against drought and encroachment, and rule out all the operations actually in progress, we should still have to wait nearly a century before we got to the end. In actual fact this programme needs to be put through in the next 10 years or it is liable to come to grief.

The intervention needed from outside has therefore to be massive, swift and continuing. It implies a bold, radical review of previous concepts underlying international cooperation, the positive results of which have indeed been much appreciated but have nevertheless left many gaps.

A Marshall Plan for the Sahel

In medical practice it is often necessary to resort to shock therapy to avoid a half-cure which would lead to the malady becoming chronic. This same principle seems to me to have an economic application, especially to the sahel countries. It is no good talking about progressive results and long-term remedies; the cure has to be immediate and work with explosive force.

Secondly, the capital needed is 10 times as much as Niger, and the Sahel in general, have hitherto had at their disposal. It must be plain to everybody that this calls for an extra effort on the part of the developed countries; and they cannot fail to have difficulties in this, when we remember their budget problems and their duties to their own nationals. In consequence the aid cannot come in the form of gifts or subsidies, but must come in the form of credits. Aid from the developed countries should consist of guarantees, or perhaps a **joint and several guarantee by the governments and international institutions in respect of an enormous loan to be launched in the world finance market.** Such a formula has shown its worth at other times and in other places, both on a small scale and on a very big one. If we think back to the state of Europe as it emerged from its post-war ruins, the idea comes to mind of a **Marshall Plan for the Sahel,** the devising and operation of which would be possible and is desirable. Its possibility lies in the huge mass of capital which is requited and unemployed, in the big reserves which lie under the threat of inflation and monetary erosion. In this field the sahel countries, perhaps more than any other group, have suffered in the past from the fact that the criterion taken into account is that

of profitability; but in this case it is possible, and it will be quite right and proper, for the profitability of capital brought into use, to be carefully assessed on a joint basis with the future creditors. A Marshall Plan for the Sahel is desirable, too, for other reasons; for in the world's present monetary chaos and all the economic, political and social disorder which surround it, surely it would be a good plan to think in terms of **long-term contracts** between the Third World and the more developed countries, as a result of which their trade with one another would be out of reach of currency fluctuations. We should thus have reciprocal guarantees, on the one hand for the outlets for the industrial production of the powerful countries and, on the other, for the agricultural and mining products of the developing world. Could we not thus escape from the worst of the maladies of the world economy which arise alike, from over-production and from shortage.

Shortages are not confined to the developing countries. It is worth remembering that in Rome the F.A.O. is considering what action should be taken by dint of international cooperation, to mitigate the effects of a huge deficit in supplies of cereals which may last for several years.

In this connection, too, it is worth remembering that the european world is in danger, according to some estimates, of a deficit of several hundred thousand tons and that the african continent might be able to cover at least some part of this.

Potentialities of the Sahel soil and sub-soil

Getting back to my idea of a Marshall Plan for the Sahel, I do not think the immediate profitability criterion, or even short-term profitability, important as it may be in transactions of a more limited scope and character, is the only one which the developed countries should take into account.

This is because the ultimate potential of the Sahel soil and sub-soil is demonstrably enormous.

The mineral prospecting of the countries is far from complete and the mine operations are only in their early stages. Both, however, disclose the presence of considerable quantities of uranium and rare metals, such as tungsten and molybdenum; and these are supplies which modern industry badly needs.

The top-soil, too, can become rewarding, provided the plant life—which already enjoys a remarkable degree of photo-synthesis because of the great luminosity—can be put into a position to absorb at the right time an adequate quantity of water to support its growth.

We already have the industrial crops, such as cotton and groundnuts, which are now handled tribally and the contribution of which to the world market is well known. There have, too, been extremely promise in experimental results with sugar cane. Excellent results, too, have been secured with the chief market garden cultures and the growing of fruit trees is doing well, so that early supplies to the market are much appreciated. Moreover, the size of the cattle herds is well known, had it not been for their almost total destruction by the past five catastrophic years.

It is quite obvious that all these resources can be increased 10-fold by well judged development, which would include crop diversification, technical improvements, the use of fertilizers, permanent pastures, stock selection and a number of other programmes. Most important of all is the radical and lasting change in the environment, when the agricultural and pastoral development programmes have been carried out.

The manpower capital

Finally, apart from the resources I have mentioned, the Sahel has another of overweening value. This is its capital in the form of manpower, a factor without which development plans cannot succeed, whatever finance or whatever technology be brought into play.

The people of the Sahel rank high in numbers and in quality among the members of the under-developed social systems—indeed in some respects among others more developed. They are strong, sober, dynamic, fertile, well-balanced both physiologically and psychologically. They are reasonable and peaceable in their attitude, they are not restrained by complexes and keen enough for modern progress without disloyalty to their tribal values.

These human resources, of countries where life is harsh and rough deserves aid and could use it well; and against a background of education and sanitation it is capable of flourishing in its changed environment.

Among the many justifications for development, this is the most determinant. Moreover, the sahelians themselves would not be the only people to benefit.

Water in the Sahel: local solution for a world problem

The struggle with the problems of water, drought and desert encroachment must, in the long term, yield profits through the increased wealth it will generate in the higher standards of living and purchasing power of the sahel peasants and herdsmen, and by the increased security of supply for which consumers in developed countries are apt to call. At the same time it must not be considered solely from the standpoint of commercial or financial profit.

The problem of dealing with water in the Sahel should be considered as a local solution for a problem of world importance. Water shortages have already raised problems in various other tropical countries along the african coast, where the volume of water retained above the dam has this year been less than was expected. This is a problem which will inevitably arise in the more developed countries, where people are anxious to avoid waste and pollution of resources which are not inexhaustible, and where the dessalination of sea water on an industrial scale may bring additional supplies of appreciable amount, but nevertheless expensive. Moreover,

a change in the Sahel climate would undoubtedly have a good effect on the african continent as a whole, and more particularly on the Sahara.

The scale of this astonishing experiment calls for action to match. This means it must be international; and though it must admittedly be based on fellow feeling and the fine burst of generosity which has come to the Sahel sufferers from all parts of the world, it must also stem from reason and interest, from the lasting recognition of the interdependence of the world's economic systems and from the solidarity of the human race, alike in want and suffering and in prosperity and abundance.

I have done my best to tell you of the drama which, for almost a year, has beset nearly 10 million women, children, old people and young people in the vast world of the rural Sahel. Along a front of nearly 4 000 km from Mauritania to Chad, men and their beasts, the trees, the wells and other sources of water lie under the threat of death from drought and the inexorable advance of the Sahara desert. The very existence of our countries is threatened by the advance of the desert, the famine, the massive exodus of our population which is taking alike the nomadic and the settled.

The international community has responded generously to our appeal. It has given much aid, but this has been for our immediate needs, for all that is urgent and ranks with high priority. Yet what is to be our future—God alone knows. What can the international community do? It can do much, perhaps everything, with the help of modern technology and inspired by the international brotherhood of man.

It remains for me to express once more the gratitude of the peoples of the Sahel in general, and of Niger in particular, and of the governments of the afflicted countries, to all those from far and near who have contributed, however modestly, to a work of so high a human content which has helped us to save millions of human lives. ■

René Haquin

At Aïr (Niger) wells are dry up. The region is becoming by little and little without any live if it does not rain during next years.

Standpoint of the engineer

Hydraulic projects: E.D.F. action and further proposals

by Daniel VINCENT

Man was born of water and he lives by water. The importance of water in everybody's life is so obvious that there is no need to dwell upon it. The milieu in which and by which humanity lives, the biosphere, is 60 % made up of water; and without it there can be no subsistence and no reproduction.

A pseudo-scientific approach to the human problem of water is apt to produce a reassuring picture. In the course of a day the human body eliminates between 2.5 and 3 litres of water and has accordingly to reconstitute it. If we add to this the water needed for hygiene and the cooking of food, we reach a total of 40 litres a day. This means that the water requirement of mankind throughout the planet runs to 50 cu.km of water. Compared with the resources the figure looks laughably small. In the oceans there are no less than 1.2 billion cu.km, though this is unluckily salt water, whereas it is fresh water humanity needs for its survival. The great polar ice caps, however, are made of fresh water, and there are 30 million cu.km of it; but this might for the time being be rather difficult to use. Even when we fall back on rain, nevertheless, the figures are still impressive; for experts estimate the annual rainfall at 250 cu.km; and of this, fully 100 cu.km falls upon the land continents of the world.

These figures, of course, are of little more than academic interest. The fact is, that water is very irregularly spread, both in space and in time; and the whole history of mankind can be read in terms of his being condemned to seek it out. There is no need to enlarge on the important part played by the valleys of the great rivers as nurseries of civilisations, or on the age-old techniques mankind has used to make water his servant—on the drilling of wells to tap the underground sources, on irrigation, on the channelling and the transport of water. It is worth noting, nevertheless, that some of the worries of today were already familiar in olden times. It was the pollution of the waters of the Tiber which led the Romans, long before the Christian era, to build great aquaducts to bring to their cities the pure water of the mountains. In the year B.C. 100 Rome was consuming 500 litres a day per head of its inhabitants, which is well above the 40 litres subsistence quota mentioned in the foregoing, and comparable with the city consumption in Europe in our own times.

Despite the lessons of history, however, it has only been in the last few years that the industrial countries of our own period have been faced with the real problem of water. They are victims of their own population, of their own wasteful habits and, most of all, of the unbridled waste of their industry, which is a huge consumer and an inordinate polluter. The american consumption of water is no less than 4 000 litres a day per head of population.

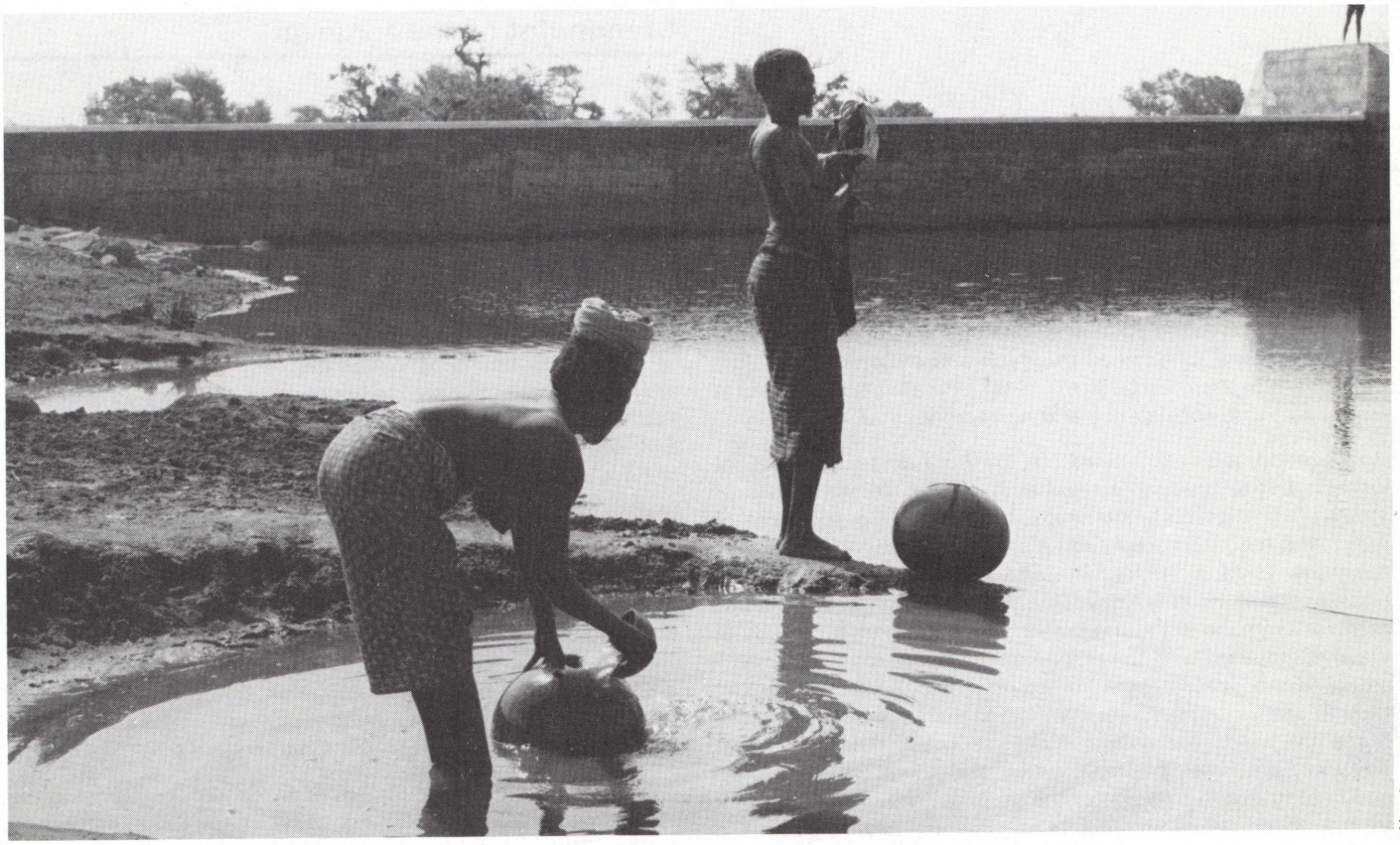
These figures are well enough known; and the reason they are recapitulated here is to set a new dimension on the problems of developing countries which are now suffering from water shortages. Not only have these countries to continue their long battle with unfriendly nature in areas which are arid or semi-arid; but they have also to face the extra needs which a born of development and the conditions in which it takes place.

This explains why the **European Development Fund** has given special attention to hydraulic projects. These have the three-fold objective of giving people the water which is indispensable to their survival; to make access to this water easy and acceptable; and to procure the water resources which are a necessity for economic development. The first two of these objectives need no justification; for water is the most elementary of all requirements and every human being has a right to it. No effort must be spared in such a field as this.

It is not easy to quote figures or percentages relating to the hydraulic schemes in the finance of which the E.D.F. has played a part. This would involve recapitulating the many hydro-agricultural schemes which are covered by another study published in this same issue of Association News. It can be mentioned here, however, that it has been through the E.D.F. that more than 5 000 wells have been sunk during the past 15 years in Mauritania, Senegal, Mali, Upper Volta, the Ivory Coast, Togo, Dahomey and Chad. To this must be added a considerable number of drillings, permanent ponds and small dams. In the early years of the E.D.F. these projects connected with drinking water, village water or the watering of pastures were dealt with individually, for the simple purpose of supplying human beings and their beasts with the water needed for their survival. More recently, action on these lines is increasingly dealt with as part of more elaborate development programmes for agriculture and stock-raising. This explains the fact that they enter less than hitherto into the nomenclature of the published statistics.

Execution of E.D.F. hydraulic projects

Interest attaches to the arrangements which have been made in the past for carrying out these hydraulic projects. In the early days they were executed in their entirety by big european firms which alone were able to carry out the big programmes which had been financed within the short intervals provided for them. It must be admitted that these firms did an excellent and praise-worthy job, especially since the work was often difficult because of the dispersion of the main undertakings. The cost



Naud

Getting water from the dam (Upper Volta).

level was materially brought down as the years passed, partly through progress in site organisation, partly through the use of material better suited to the working conditions and still more by the open competition between firms in the Associated countries and in the member countries of the E.E.C. The sinking of a well, for example, used to cost F-CFA 80 000/ 100 000 per metre and has been lowered to F-CFA 40 000/ 50 000, so that now the Associated countries can have twice as many water points for the same investment. The results of this work, therefore, can be regarded as generally satisfactory.

In recent years, however, there has been a very definite development in this conception of contracting. The Associated countries are fully conscious of the great importance of hydraulic work; and they have progressively set up, or strengthened, their national organisations which had the maintenance of water points as their primary task. Many of their governments thought it advisable to suggest to the E.E.C. Commission that the activity of these organisations should be extended to the execution of the important programmes which the E.D.F. was financing. There are many advantages in this formula. They do not lie so much in the work being done cheaper; and indeed, the cost saving when the work is undertaken by a public body are often illusory. A more exact calculation of the cost of work undertaken by official bodies, including all the constitutive elements, is apt to lead to the figures being appreciably higher. The real interest, however, lies in the better integration of the project into the local conditions and thus, on its better impact on the economy of the country concerned. Moreover, the national organisations are thus accumulating a valuable experience and making use of it to strengthen their work force and enlarge their equipment and so to improve their capacity for the maintenance work.

It is also a fact that the handling of these jobs by national bodies under the direct responsibility of national government departments, makes it easier to bring the local population into the work. In this way various investment schemes with a high labour content, which had been brought to a halt when tackled in other conditions, have been taken over and brought to fruition with remarkable success.

It is desirable that these experiments should succeed; and to this end there needs to be a certain caution in the early stages regarding the scale of the work put in hand, so that success may not be compromised by trying to go too fast. In this way the hydraulic projects can be the forerunners of a new policy extending into other fields and leading to the Associated countries playing a bigger part in the schemes financed by the E.D.F. The importance of this development has been stressed in a memorandum by the Commission as leading to the continuance of financial and technical co-operation in the enlarged associations.

The figures in fact show that the **apparent** cost per linear metre of sinking a well when the work is handled by a government organisation, has come down to F-CFA 25 000. This development is in line with the concern felt in developing countries about the employment of local manpower; but side-by-side with it has come a technological development, the consequences of which apparently point in the other direction. For some time there has been in use in the Ivory Coast an american machine which makes it possible to sink a well of diameters up to a metre or 1.20 metres, at a cost price between F-CFA 25/30 000. It is learnt from the press, too, that the russian scientist Psiferov, is claimed to have adapted the rocket technique in a manner which will sink a well to 17 metres depth in less than 20 seconds. Perhaps we are still in the realm of science fiction, but it is certain, nevertheless, that important technical progress is to be expected in this field during the next few years, and there is every hope that the new sophisticated procedures may bring down production costs. It may be asked whether it would not be preferable to use these modern techniques to the full, rather than stick to the ancestral methods on the pretext of using more local manpower. As often happens in such cases, the problem thus stated is fallacious. It is in fact perfectly possible to allocate the tasks judiciously and so to reconcile the employment requirements with the advantages of advanced technology.

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In 1973, the **drama of drought** of which the sahel countries have been victims for several years, came with startling abruptness to the attention of public opinion in industrial countries. This is a region with insufficient and irregular rainfall and thus with climatic conditions which make nature hostile; and a super-normal defficiency in rainfall through several seasons has produced the disaster of which everybody is now aware.

Underlying this is probably a period phenomenon, the causes of which are insufficiently known. In the past the Sahel has had other periods of exceptional drought, the most noteworthy in the present century having been that of 1913-21.

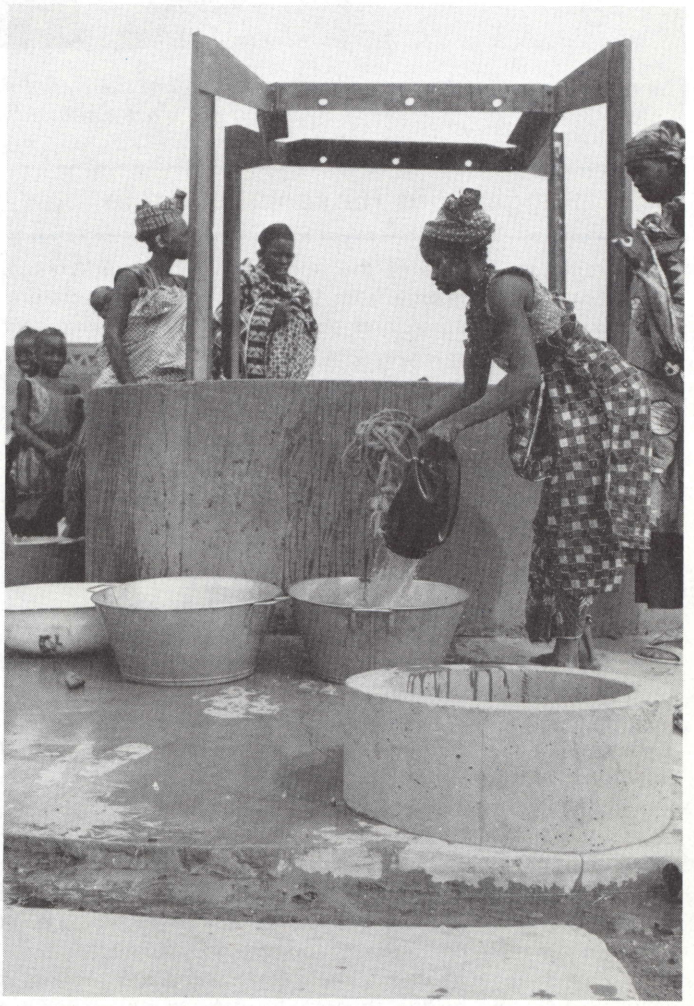
The first question to be asked is whether the considerable investments which have been made in this area during the past 15 years have made it the better able to endure its adversities, whether they have been ineffective or have even made things worse. Were the investments sufficient, insufficient or excessive? were the credits made available used in judicious fashion?

In such matters self criticism must not be indulged in for fun. It is, however, worthwhile to throw some light on the lessons gained in an unfortunate experiment.

The present author is here expressing only his personal opinions, and has no intention of taking part in the polemics which these problems have set up. Ultimately, however, this discussion has served a useful purpose in enabling eminent specialists to put forward views with all the passion which the subject requires, which are often wholly contradictory but always extremely interesting. It seems possible to advance the view that what has been done in the Sahel is both too much and too little. The hydraulic schemes for human and pastoral purposes, coupled with health progress, both for men and for their beasts, has induced an increase in the population of the area which seems to have been unduly rapid. Some sort of natural equilibrium was upset and the elements for setting up a new equilibrium have not yet been brought into action.

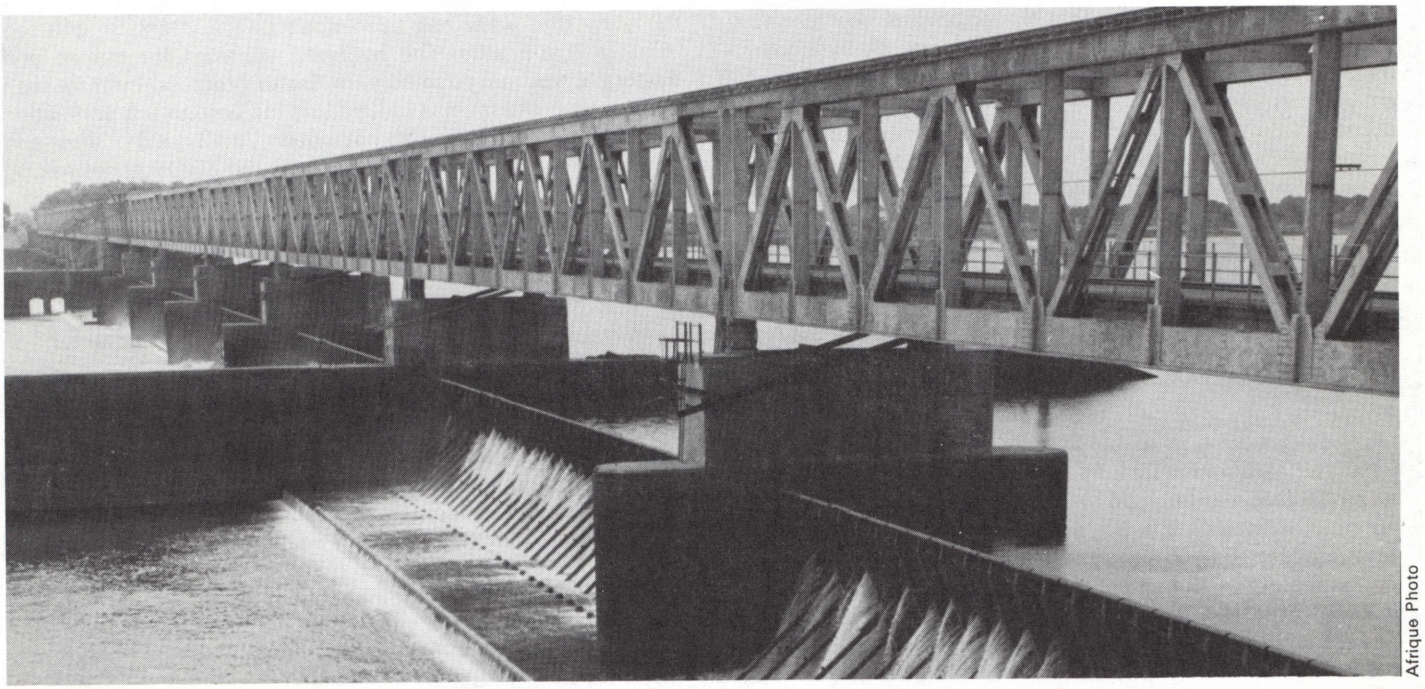
The first conclusion which emerges, therefore, is that thorough consideration must be given to any large-scale investment scheme for hydraulic development in the Sahel area. We must avoid being cast for the part of the sorcerer's apprentice.

This does not mean that we must refrain from all action and abandon the Sahel to its unhappy lot. There are, on the contrary, many schemes of an expensive kind which must be undertaken. It is to be hoped that President Lamizana, who was appointed at Ouagadougou to plead the sahel cause with international organisations and the industrial countries, will succeed in securing the external aid which is needed for a gigantic common task, in which of course, the initiative and the responsibility must lie with the sahel countries themselves.



Naud

At the well, you pick up the news as well as the water (Mauritania).



Afrique Photo

The real long-term chance of human survival in the Sahel may lie in regularising the flow in the big rivers (picture shows the Sansanding dam in Mali).

Suggestions for specific action

Regarding the nature of the operations to be undertaken, the first word must come from the specialists in agriculture, livestock and the human and political sciences. An engineer may, nevertheless, be allowed to put forward **a few specific suggestions** on the schemes which should be put in hand without delay. In the question of water development, **urgent small-scale operations** must be put in hand to relieve human suffering on the very short term (1973-74). Wells must be repaired, some of them sunk deeper and new ones sunk. The risk has got to be run that some of the action will be abortive, and the other risk that projects actually carried out will, on the longer term, be regarded as of doubtful interest. In order to limit these risks, and deal most effectively with the emergency, the best course is to **go to the national hydraulic organisations or departments** who are the people best able to intervene on a case-by-case basis. All that is necessary is to give the services the material resources they need before they can intervene. Outside the hydraulic aspect, it should be noted that a similar approach is called for regarding the necessary repairs and improvements in roads and pathways, so that these countries can deal with any further consignments of food aid.

It is also necessary that a programme be set on foot without any delay to **collect and complete all possible information** on local conditions, more especially on the meteorological and hydro-geological sides. Stodgy and expensive study programmes are of course to be avoided; and still more is it desirable to avoid having to pay afresh for work which has already been done. What is needed is a hydraulic balance sheet for the area, with special reference to the conditions which determine the replenishment or the exhaustion rate of water resources. If necessary, crash research programmes should be launched to fill in any gaps in existing information.

There should also be an acceleration of research and experiment programmes aimed at working out **new techniques** which may result in basic changes in some of the characteristic local data. It is not a question of getting prematurely bogged down in procedures which are not yet operational, like the russian rocket mentioned above; but rather to secure a gradual completion of the technological arsenal which humanity must have at its disposal in dealing with nature in her more difficult moods. Who knows, for example, whether the use of solar energy may not within a few years prove to be an economic solution for a number of the local problems?

Finally, special attention must be given to the problem of **regularising the flow of the great rivers,** which seems in the long run to be the real chance for securing man's survival in the Sahel. The engineer Drouhin, in a recent interview, noted that China has built 12 000 big dams since 1969, that Spain is building one per month, that Morocco has built eight since 1967, but the Sahel does not possess a single one. There is, nevertheless, no lack of plans and studies. All the possible, and indeed all the imaginable sites have been listed, and since the war many of them have been the subject of quite advanced studies. It is time the dust were shaken off these files and, if necessary, they must be brought up-to-date and completed. The multinational bodies responsible for the great rivers must be stimulated into action; international finance organisations must be induced to take an interest. Since the Ouagadougou meeting this movement is already going forward. It is certain that Community aid will not be lacking. ■

D. VINCENT

The part played by water in production and the balance between cultivation, forestry and pasture

by Robert GRÉGOIRE

Water is the key factor in agricultural production in the sudano-sahelian area. The local ecology is characterised by a short wet season of 3 or 4 months with violent and irregular rainfall which comes between two long dry seasons with drying winds and a very low hygrometric level. The importance of water is the greater for the fact that it is generally available in insufficient quantities, and this becomes increasingly the case as we go further northward and come closer to the Sahara desert.

Thus from the earliest times man has sought to make the best use of such water as nature so sparingly put at his disposal. His very mode of life was strictly adjusted to the amount of water which could be counted upon for his plantings, his beasts and himself. The settled Sereres populations in Senegal, the Senoufo in Mali and the Boussou in Niger, the semi-nomadic life of the Peulhs and the Haoussas and the wholly nomadic life of the Touaregs and the Maures are but the reflection of this adaptation to the all-powerfulness of water.

Besides this passive adaptation to tough ecological conditions, man has attempted, whenever the chance arose, to adjust conditions to his own advantage by taking action to get control of the water. This can be seen in the plains flooded by the Niger, the efforts to make the best use of rainponds, the sinking of wells and the channelling of underground water to form oases around which there was a partial settlement of population. Nevertheless, the scanty means at mans' disposal permitted only of limited surface cultivation so that the populations which lived by it were small.

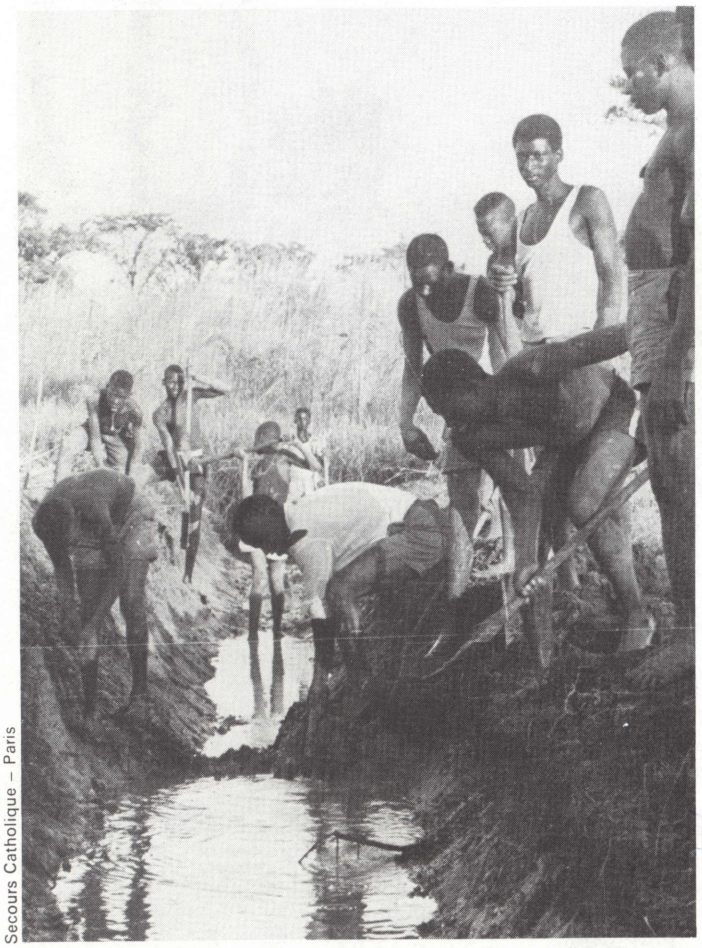
This fragile and precarious balance has been broken by the progress of science in hydraulic agronomy and in human and veterinary medicine. There has been a rapid increase in the number of men and the number of beasts, leading to the grubbing of pastures and the destruction of forests. This distorsion of the balance has gone all the deeper for the fact that a long series of rainy seasons has masked it for quite a number of years. The result is that, with 2 or 3 years of fresh dry cycle, the effects have come only too clearly to light.

Naud

Irrigation in the old-time way (Chad).

Naud

Trying to break up the heat-cracked soil (Mauritania).



Secours Catholique – Paris

Irrigation work at the rural training centre at N'Fonimba, one of the mini-projects of Secours Catholique (Mali).

This does not mean that we have done wrong in bringing to the benefit of these populations the full advantages of our knowledge; and indeed the European Development Fund, in response to requests made by the sudano-sahelian countries of the community (Senegal, Mauritania, Mali, Upper Volta, Niger and Chad) has provided substantial instruments to aid them in dealing with the precarious nature of their water supplies.

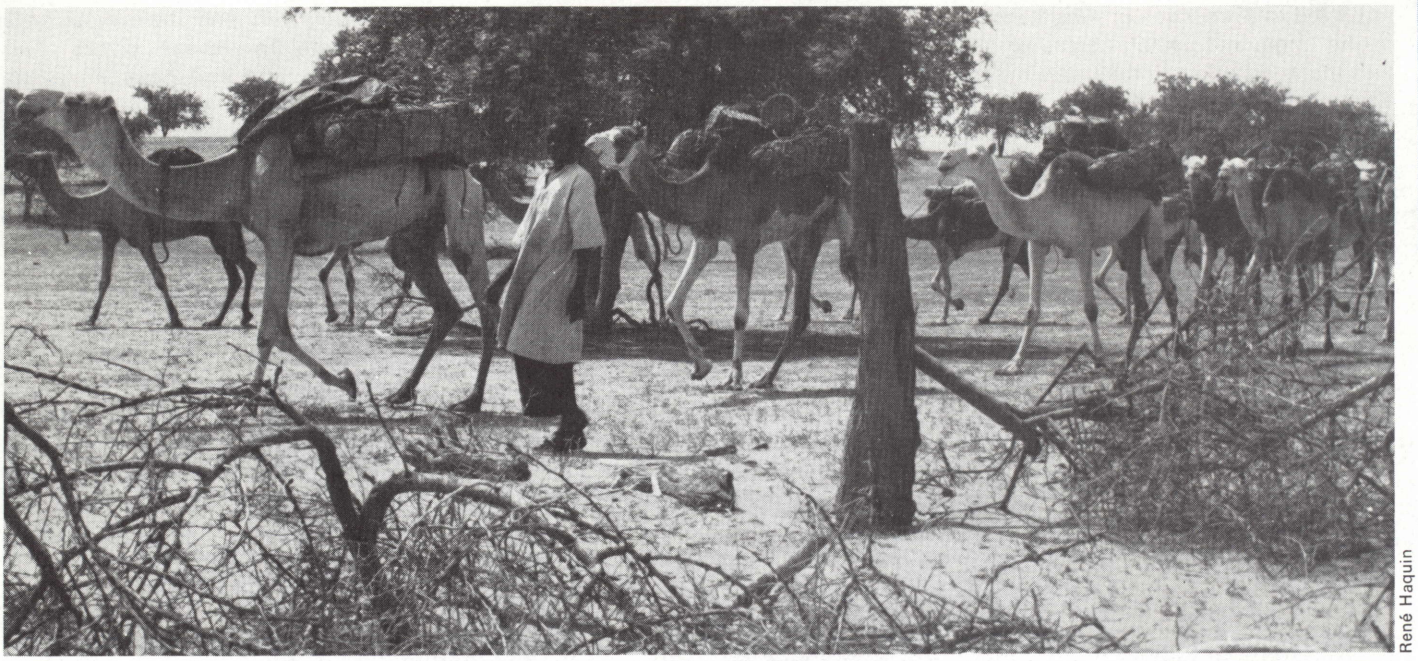
E.D.F. intervention 1960-73

In regard to agricultural production, the E.D.F. has given aid under four main headings in 1960-73 with the sole objective of making the best use of the water available. These are:

— **utilisation of surface water:** rivers, tributaries and lakes. Finance has been provided for 17 projects of hydro-agricultural improvement covering 50 000 hectares and amounting to UA 43 million. This has been used to secure a regular rice crop in cases of controlled submersion, two rice crops in cases if irrigation;

— **optimum utilisation of rainfall:**

The objective was a considerable development of the industrial crops, consisting essentially of groundnuts, cotton, dah and tobacco. It was only secured by popularising the dry farming techniques—pre-cultural ploughing to facilitate water storage in the Sahel, early sowing with short-cycle varieties to make the best use of agriculturally useful rainfall; and the cleaning and dressing of land so as to make as much water as possible available to the crop grown.



René Haquin

Both men and animals (especially camels and goats) are to be blamed for deforestation. It causes degradation of the soil and makes the drought worse

The subsistance crops alternating with the industrial crops have at least had partial indirect benefit from these schemes. Support for schemes of this type covered 15 projects amounting to UA 34 million.

— **utilisation of underground water**

These interventions are more recent and cover as yet only a limited geographical area, since the method was only developed quite recently in the Casamance area of Senegal. It is capable of some extension, however, in the Sudan areas, more especially in southern Senegal and Mali.

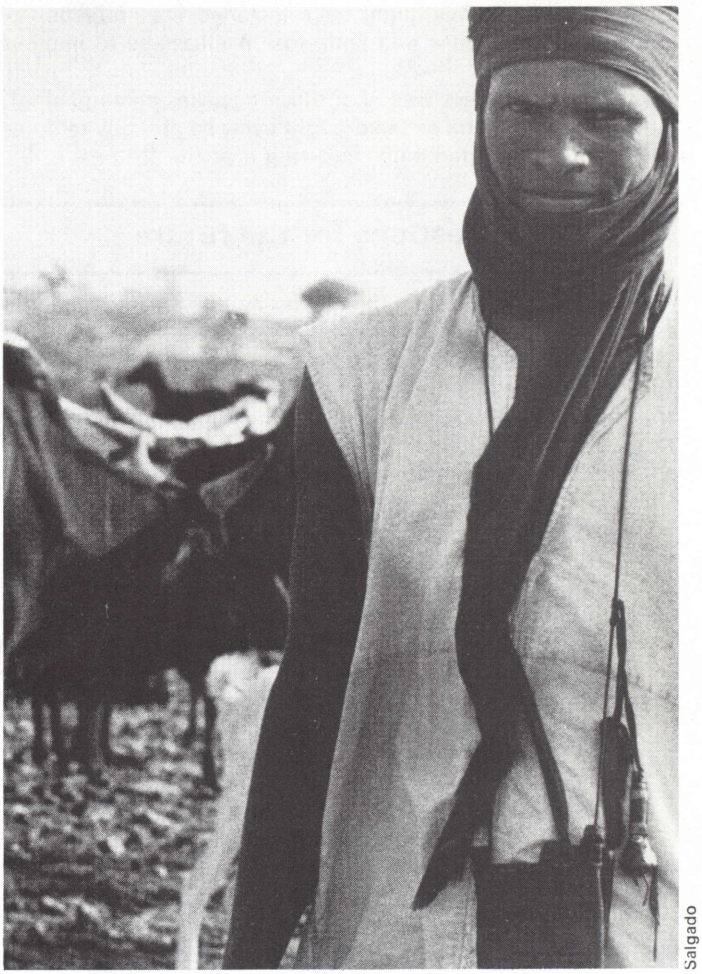
— **utilisation of deep-level water**

This has consisted of a chequerboard programme of bore-holes and well sinking to improve the watering for nomadic herds, especially in Niger and Chad.

* * *

All this had a good effect on cattle-raising and improved some of the crops, especially rice, groundnuts, cotton and tobacco. The effect was felt alike by the individual growers and by the State; and there was a material improvement in peasant living standards and working background. Nevertheless, the action taken did much to offset the established equilibrium between man, beast and the natural milieu. This happened in several ways:

— The rapid extension of the industrial crops accelerated the clearing of land and diminished the fallow, resulting in the destruction of trees which were serving a useful purpose, such as acacia albida in Senegal and Niger. In some places,



Salgado

Nomad herdsmen.

too, it led to a reduction in subsistence crops, such as the millet in the traditional pastoral areas of Niger. The general effect was that the cattle and the cattle-raisers were forced into areas where the rainfall was smaller, thus increasing the pressure on pastures just where the balance was apt to be unstable.

— Secondly, the rice growing in the flood areas of the Senegal and Niger rivers and others in the sudano-sahel regions, deprived the cattle of the pasture to which it had always been accustomed to come in the dry season. This was another influence leading to the over-use of the less favoured pastures which quickened their destruction.

— The reduced area of fallow land considerably disturbed the existing form of association between arable and livestock which had hitherto helped in maintaining the fertility potential of the Sahel in areas of settled populations.

— The grid of wells and boreholes had apparently been beneficial, because it curtailed the great cattle migration which had been angled on using the pastures around natural points which were more distant and dispersed. It nevertheless led to the destruction of the pasture around the new artificial water-points.

— Finally, the desire for quick results which would show in the production figures led to the neglect of longer-term and less spectacular action, which would have done more to preserve the soil. This might have included the protection of wooded pastoral areas and anti-erosion measures to improve hillside pastures.

The unhappy effect was, that these mistakes came glaringly into evidence as soon as the drought cycle so abruptly returned and serious losses and much suffering ensued.

Suggestions for the future

The painful facts which have been noted will have to serve as the background for all further interventions in the future.

Several projects have already been put forward on these lines. They include the cattle-raising projects in south-east Mauritania and the north-eastern part of the Ferlo in Senegal, where the expansion of the herds is regulated by the genuine pasture potential and the improvement in sanitation and watering facilities for cattle is carried out only in the light of the fodder potential.

The same applies to various hydro-agricultural improvements in Niger, where proposals are under consideration for replacing the second rice crop by irrigated fodder cops.

Up to the present, however, these are projects of only a limited geographical scope and more or less experimental in character.

* * *

The dimension of the problems raised by the present drought in the sudano-sahelian zone and the necessity for acknowledging the negative aspects of some of the action taken in the past, prompts a review of the methods of intervention and the principles underlying them. The following considerations apply:

— In the first place it is important to make full use of the irrigation potential represented by the Senegal and Niger rivers and their chief tributaries; and to this end there must be a **general improvement scheme for these rivers.** This calls for considerable investment, and will be a long-term operation; but it is only at this price that they will be brought into the genuine service of the sahel population.

— Development will have to be based on a balanced growth of agriculture and stock-raising. This means that it must be planned not on the basis of geographical limitation to the irrigable land areas, and leaving out highlands in the basins of these rivers, but as part of a plan for the development of very much bigger areas.

— In parallel with this there must be protection of the more vulnerable highland areas, where the rainfall is slight and which have suffered from deforestation and over-pasturing. The protection would enable the land to benefit from the natural process of regeneration, which will be the more effective if it is given time to mature. Special care must be taken to secure the regeneration of tree growths, which are particularly good for forage purposes and for protecting the soil, without prejudice to growths such as acacia albida. This implies that the excess human and cattle population must be moved out; and since it must leave the protected zones, we must think in terms of reception zones further south, where the rainfall is better, or in which there is less fragility in the balance between tillage, pasture and forest.

— At the same time the agriculture must be made more intensive on the better land not requiring special irrigation, which will make it possible to gain in yield what is lost in surface. The extensive cultivation is almost always an instrument of soil destruction. The techniques of intensification are well known (e.g. fertilizers, seed selection and regenerative crop rotation). All that is necessary is to put the process to work over big areas. The industrial crops must still be the motive force in this intensification, but without setting aside the subsistence crops, provided a sound rotation system is observed.

Attention should also be paid to the subsistence crops, but for the most part not in the form of programmes for bigger production, but through the policy of making them more valuable to the grower by well-organised marketing at a remunerative price.

This should suffice to raise the production of millet, sorgho and maize to a level high enough to satisfy the food requirements of the sudano-sahelian countries. This would apply even in periods of bad weather conditions, provided a storage network were maintained at strategic points to facilitate dealing with any food supply shortage which might arise.

* * *

These suggestions for E.D.F. intervention in the years ahead are working hypotheses which all point to regional action stretching outside the frontiers of the individual sahel countries. They therefore imply an inter-african political decision to this effect.

Luckily there are grounds for hoping that regional action will in fact come to pass in the next few years. They are to be found in the spirit which governs the relations between the Common Market and the Associated african countries and Madagascar; and also in the resolutions taken at the Ouagadougou meeting. ■

R. GRÉGOIRE

CURRENT NEWS

NEGOTIATIONS

Brussels, November 21 to December 14, 1973

A first phase of negotiation took place between November 21 and December 14, 1973 between on the one hand, the European Community and its member States and on the other, the Associated African States, Madagascar and Mauritius and the independent Commonwealth States in Africa, the Pacific and the Antilles and certain other african States. This was in accordance with the agreement reached on October 22-23, 1973 between the Committee of african ambassadors and plenipotentiaries and the Commission.

This first phase of negotiations began with a plenary meeting at the level of ambassadors and plenipotentiaries. After this two working parties, the one concerned with commercial questions and the other with financial and technical co-operation, set to work on the tasks assigned to them by the plenary Committee.

Now that substantive negotiations have begun, it is the intention of Association News to give readers a regular account of their progress and indications of the main problems arising. For this purpose it seems desirable both, to allow leading personalities from Africa and Europe to state their standpoints and also, to include in each number an account of the most recent meetings.

In recording the standpoints of leading personalities, we began in the last issue with President Hamani Diori by reporting on the principal points he made at his press conference in Brussels. Other leading personalities concerned in the negotiations will of course be asked to state their views in subsequent issues, so that our readers may be well informed on the various attitudes which are being taken. Beginning in the next issue, too, the early part of this section of the paper will give priority to an account of the negotiations themselves.

E. D. F.

Following the assent given by the Committee of the European Development Fund (E.D.F.) at its 83rd meeting, the Commission of the European Communities has made eight further financing decisions on non-repayable aid from the 3rd E.D.F., to a total of u.a. (*) 14.937.000.

Martinique : *Irrigation of south-eastern Martinique, first instalment* FE 8 585 million (about u.a. 1.546 million).

The irrigation project is the first part of a directly productive intervention which is to continue over 10 years. Its ultimate objective is to permit of intensive agriculture covering 4 000 hectares in south-eastern Martinique. Bilateral french aid is also participating in this first stage, with a commitment of about u.a. 5.9 million.

Mauritius: *Extension of the University of Mauritius:* 7 million rupees (about u.a. 1.26 million).

This is the first case of Community aid to Mauritius since the island became an Associate. Its aim is to enable extensions to be carried out to the university, which has been in operation since 1968. The finance covers construction work and connection with the electrical, water supply and sewage systems, together with the necessary equipment.

Islamic Republic of Mauritania: *Construction of a polyclinic at Nouakchott and technical aid in organising the hospital maintenance service and training its personnel:* U.M. 25.2 million (about u.a. 454 000).

Pending the financing by Community aid of the extension of the National Hospital of Nouakchott, this intervention is an urgent section covering the construction of the first operational part of a polyclinic to be set up in the Medina of the mauritanian capital. It also provides for two years technical assistance in training the maintenance personnel for the National hospital and the polyclinic.

Islamic Republic of Mauritania: *School buildings:* U.M. 116.6 million (about u.a. 2.1 million).

The project provides for the construction of 48 class-rooms and connected buildings for basic educational purposes at Nouakchott, and four colleges and four classrooms in regions distant from the capital. Its aim is to diminish the shortage of premises for elementary and secondary education and to develop a regional system which will promote school attendance in the interior.

Republic of Upper Volta: *Development of 150 ha of plains below rural dams:* 158 million F-CFA (about u.a. 569 000).

In the first instance this aid is to finance a first section of improvement and developing work in the plains below dams which are already in existence, covering an irrigable area of 150 ha. Secondly, it is intended for collecting the technical information required for a second phase of the same project. The improved land will be used for rice cultivation and market gardening.

Republic of Chad: *Bridge over the Ba-illi:* 150 million F-CFA (about u.a. 540 000).

This is finance for an 80 metre road bridge over the Ba-illi river, with improvements of 1.5 km of access roads which will provide reliable communications between Fort-Lamy and Sahr.

All Associated african countries, Madagascar and Mauritius and E.E.C. oversea countries and territories: *Provision of a credit of u.a. 5 million at the disposal of the comptroller of the E.D.F.*

(*) u.a.=about $ 1.20 USA (new parity).

This provision is intended for financing projects by the accelerated procedure. It will cover technical co-operation; studies and activities linked with investments; general technical co-operation activities; and the making and execution of plans for marketing aid and sales promotion for products from the Associated countries.

All the A.A.S.M.: *Finance for the A.A.S.M. participation programme in fairs and exhibitions in* 1974-75*:* u.a. 2.550 million.

This is the continuation of the Community programme to enable the A.A.S.M. to participate in fairs and exhibitions in Europe and in Africa. It covers expenditure on the construction and arrangement of stands; the organisation of promotional weeks or fortnights for A.A.S.M. products; information, advertising and prospecting campaigns; training for personnel minding the stands; and part of the transport costs incurred by the Associated countries.

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Following the assent given by the Committee of the European Development Fund (E.D.F.) at its 84th meeting, the Commission of the European Communities has made four further financing decisions relating to non-repayable aid from the 3rd E.D.F. to a total of u.a. 6 589 000. To this is added u.a. 76 000 for a project previously approved by the Commission.

Republic of Senegal: *Village hydraulic schemes:* 1.1 billion F-CFA (about u.a. 3.961 million).

The project provides for 22 bore-holes and 132 wells in five different parts of the country. It will also cover the supply of material needed to equip two working teams commissioned to sink the 132 wells and provide for their maintenance. In view of the years of drought from which the country has recently suffered, the execution of this project is to be given priority, since water is the indispensable primary factor for rural developments.

Comores Archipelago: *Main road modernisation on Anjouan and Mayotte:* 595 million F-CFA (about u.a. 2.143 million).

The project provides for improvement of the main roads on the islands of Anjouan and Mayotte in the Comores Archipelago. It comprises the building of 47 km of new road, 3.50 m wide, replacing former earth tracks, the use of which raised difficulties. The two sections concerned are Mamutzu-Ezumogne on Mayotte (25 km) and Sima Pomono on Anjouan (22 km). These will provide off-take facilities for agricultural produce in regions which have hitherto been isolated.

Republic of Burundi: *Technical assistance and tea production unit for the Tora plantation. Additional finance:* F-bu 37 124 000 (about u.a. 391 000).

The aim here is to increase the commitment made in July 1972 (u.a. 1.06 billion from the 3rd E.D.F.). When the tenders were opened the provision was found to be insufficient, largely because of the construction of the tea production unit. The excess is traceable essentially to the higher prices for supplies, which account for 50 % of the cost of the unit. Another cause is the rise in transport charges in East Africa, across which most of the equipment will have to pass. The new tea unit is scheduled to be operational in 1975.

ASSOCIATION NEWS—Overall provision for publication: u.a. 94 000.

This is for publication every two months of Association News, which has editions in french and in english and currently prints 20 000 copies. In 1974 the circulation is to be progressively raised to 25 or 26 000 copies. It provides information for readers in the Associated countries and in the Commonwealth associable countries on various aspects of the Association, together with facts, news and views on the problems of developing countries. It is also a link with people in Africa who have followed courses, taken part in discussion meetings and held bursaries. In addition to this provision u.a. 20 000 is provided from the Commission budget to cover the costs of the english edition (about 4 500 copies).

Upper Volta Republic: *Additional finance for modernisation of the Bobo-Dioulasso-Faramana road:* 21 million F-CFA (about u.a. 76 000).

This road is 118 km in length and finance was provided by the Commission from the resources of the 2nd E.D.F. to a total of u.a. 4 337 000 by decision of June 29, 1966. The present finance is aimed to cover certain changes in the road characteristics decided upon while construction was in progress.

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The finance decisions now taken bring **the total commitments of the 3rd European Development Fund to u.a. 627 174 000, pursuant to 231 decisions** since the Fund came into operation on January 1, 1971.

European Parliament

More aid for Sahel countries

The Committee for Development and Co-operation under the chairmanship of of Mr. Ernst ACHENBACH (lib. Germany) had a long discussion of emergency measures to be taken to supplement the aid to the Sahel countries suffering from drought.

Mr. Maurice DEWULF (Christian Democrat, Belgium) gave an account of the experiences and impressions of a 7-member parliamentary delegation under his leadership, which had visited Mali and Upper Volta between November 1 and 6, 1973. The populations, he said, were scattered and weakened; a large proportion of the herds had perished; crops were threatened through lack of last rainfall; in short the prospects are that 1974 will be even worse than the current year. Programmes must be drawn up quickly for adequate and regular help. A population of between 6 and 8 million is involved and there remain only 3 or 4 months if the aid is to get there in time.

Following this mission of investigation, the deputies from the six political groups in the European Parliament intend proposing an amendment to the Community budget for 1974 to provide additional aid outside the E.D.F. framework, amounting to 35 million units of account for structural measures and a further 5 million u.a. for emergency food aid.

Mr. Claude Cheysson, the Commissioner concerned, shared the anxieties of the parliamentarians and stated that in his view, and regarding this as part of a general long-term policy: "We are paving the way to a very rude awakening, if the industrial countries do not take cognissance of their world responsibilities in regard to food products".

The medium-term and long-term measures for the sahel countries will be the subject of the next forthcoming discussions of the Parliamentary committee when it is considering the report of Mr. George SPENALE (soc. France).

The Deputies also had a long exchange of views with Mr. Cheysson on the encouraging progress of the negotiations for the renewal of the Association; and on the results, which were regarded as extremely satisfactory, of the joint E.E.C.-A.A.S.M. Parliamentary Committee held at Lomé October 26-31 last (see under "Developing Country" Topics in this issue).

Participation of the A.A.S.M.
in international commercial fairs

Report on the second half of 1973

During the second half of 1973 the A.A.S.M. took part in international fairs and exhibitions at Kinshasa, Algiers, Paris, Brighton, Marseilles, Berlin and Cologne. In this they were aided by the governments of the member countries of the European Economic Community and had technical and financial assistance from the E.D.F.

Cologne (Germany): Chancellor Willy Brandt while visiting the stands of the A.A.S.M. at the International Food Salon "ANUGA"

Participation

The events included various specialist shows, such as the Leather week in Paris and the ANUGA Food exhibition at Cologne. The Associated countries participating in the different events were as follows:

Kinshasa (International Fair): Burundi, Cameroon, Congo, Dahomey, Gaboon, Rwanda, Somalia, Chad, Togo and Zaïre.

Algiers (International Fair): Cameroon, Congo, Niger, Senegal, Zaïre
Paris (Leather week): Mali, Niger, Senegal, Somalia, Chad.

Brighton (International Fair): Cameroon, Ivory Coast, Gaboon, Senegal.

Marseilles (International Fair): Cameroon, Central African Republic, Ivory Coast, Upper Volta, Mauritania, Niger, Chad.

Berlin (Partners in Progress): Burundi, Cameroon, Central African Republic, Congo, Dahomey, Gaboon, Madagascar, Mali, Mauritania, Niger, Rwanda,Senegal, Somalia, Togo, Zaïre.

Cologne (ANUGA Food exhibition): Burundi, Cameroon, Ivory Coast, Madagascar, Mali, Niger, Rwanda, Senegal, Chad.

Objectives

At these exhibitions the representatives of the A.A.S.M. were seeking to secure the objectives they had laid down at the annual meeting for drawing up the Community programme for 1973, which was held in Brussels on October 30, 1972. The objectives were mainly concerned with the development of commercial contacts; information campaigns on products or groups of products; organised meetings with members of the trade and industries concerned, with a view to developing trade relations between european and african commercial operators.

In the matter of commercial contacts the number of new ones made at the exhibitions in the second half of 1973 is provisionally put at 924. These provided producers and traders in the Associated countries with a quantity of information, the use of which should improve their trade with the european countries in question. The new business contacts related not only to the usual lines of agricultural and forest products and artisan crafts, but also to new or little known lines of production, such as tropical and out-of-season fruit and vegetables, fisheries products, textiles and ready-to-wear clothing.

In the information and promotion campaigns, a special effort was made to bring a number of specific A.A.S.M. products to the attention of professional buyers and the wider public.

At the ANUGA Food exhibition at Cologne, apart from the tastings of coffee and various cocoa-based finished products, there was a special promotion for "vanilla, a natural product" from Madagascar.

During the half-year a number of meetings with the trade were held in connection with the A.A.S.M. participation in the various fairs, exhibitions and specialised shows. The themes chosen were such as to raise discussion of a number of problems which have a direct impact on the marketing of A.A.S.M. products, especially in the european

market. They also provided a basis for study and research on methods of increasing marketing efficiency and on the profitability of various types of promotion campaign.

Subjects discussed

The themes and subjects discussed at these meetings included the following:

— Paris (International Leather Week): "Production, collecting and marketing of hides and leather from the A.A.S.M.";

— Marseilles (International Fair): "Study and research on methods of increasing the commercial impact of A.A.S.M. participation in fairs, exhibitions and specialised shows";

— Berlin (Partners in Progress): "Import and transport of A.A.S.M. products in Federal Germany";

— Cologne (ANUGA International Food Exhibition): "Production of natural vanilla in Madagascar and its marketing in Federal Germany"; while at Brighton and Cologne the participants discussed conditions on the one hand:

— "For the import and marketing in Great Britain of tropical fruits and out-of-season vegetables from the A.A.S.M."; and

— "for the activities and objectives of the producers and traders liaison committee for tropical fruits and out-of-season vegetables from the A.A.S.M.";

— and on the other hand "for the production in Africa and marketing in Federal Germany of fisheries products from the Associated countries".

Recommendations

Below is a summary of the recommendations voted at these meetings. In general they reffect the current preoccupation of operators in Africa and Europe engaged in the production, transport and marketing of products from the Associated countries and of those responsible for the fairs and exhibitions service of the A.A.S.M.

The recommendations are concerned with the methods which have to be used for promoting agricultural, industrial and semi-industrial products from the Associated African countries and Madagascar in the european market. Among the actions to be taken, the Directorates General concerned with the Community fairs and exhibitions programme, were requested to make definite proposals for the year 1974; and to have a study programme draw up which will define a production and marketing policy, the harmonisation of technical standards and product conditioning, a transport and price policy and the commercial information necessary for professional operators, both in Europe and in Africa.

At the "Partners in Progress" fair at Berlin (September 21-25, 1973) the german participants laid special stress on the need for a training programme for the african staff in the transport business. The transport interests in Federal Germany would be willing to help in providing this training in german transport firms. They suggested that the possibility of financial support from the E.E.C. should be examined.

Programme for 1974

Representatives from the Associated African countries Madagascar and Mauritius held a meeting with the European Commission in Brussels to lay down the programme of A.A.S.M. participation in the Community fairs and exhibitions programme for 1974. The following decisions were made on meetings with the trade to be held on the occasion of these exhibitions:

Utrecht: "ROKA" (February 18-22): No meeting.

Berlin: "Tourist Trade Exchange" (March 2-10): No meeting.

Münich: Artisan Crafts exhibition (March 9-17): No meeting.

London: London Ideal Homes Exhibition (March 5-30): Meeting on: marketing approach to the british market for tropical fruits, vegetables, flowers, textile goods, made-up clothing, craft products".

Milan: International Fair (April 14-25): The problems conditioning the setting up of new industries in african countries producing goods as substitutes for imports or for exports. Looking for finance and sponsors. Investment guarantees.

Brussels: International Fair (April 20 to May 5): Preparations for the refresher course for stand managers, which is to take place in Brussels in 1974.
Information on the condition of the management.
Discussion of the programme.

Paris: International Fair (April 27 to May 12): Development of the tourist business in Africa. Discussion of the conclusions of the Yaoundé meeting, 1972.
Action already in hand or to be undertaken by the Associated countries.

Trieste: International Fair (June 18-30):
— carrying out of the promotion campaign for tropical timber species hitherto unmarketed or little known.

— timber industries which could be set up in Associated countries (based on the sector study on industrialisation in the timber industry being prepared by the Commission).

Berlin: Partners in Progress (August 29 to September 2).
Criteria of choice for products to be shown in exhibitions. Exhibition and display of selected products.

Paris: Leather exhibition (September 7-10).
— Leather industries which could be set up in Associated countries (based on the sector study on industrialisation in the leather industry being prepared by the Commission).

— (subject to confirmation), marketing in Europe of hides and leathers from the Associated African countries, Madagascar and Mauritius. This would follow the meetings in Paris in September 1973 and in Niamey in December 1973.

Münich: IKOFA (September 19-25).
The fruit-canning and preserving industries which could be set up in Associated countries (based on the industrialisation sector study being prepared by the Commission).

Marseilles: International Fair (September 20-30).
Customs problems raised in participation by african countries in fairs and exhibitions. (Consignments documents, certificates of origin and others, treatment of merchandise on arrival, declarations required, taxes to be paid, reforwarding formalities, payment of forwarding agents on arrival and on departure).

Paris: SIAL—International Food exhibition (November 12-18).
— (subject to confirmation). General meeting of the A.A.S.M.M. liaison committee on tropical fruits and out-of-season vegetables.
— Fruit canning and preserving industries which could be set up in associated countries (based on industrialisation sector study being prepared by the Commission).

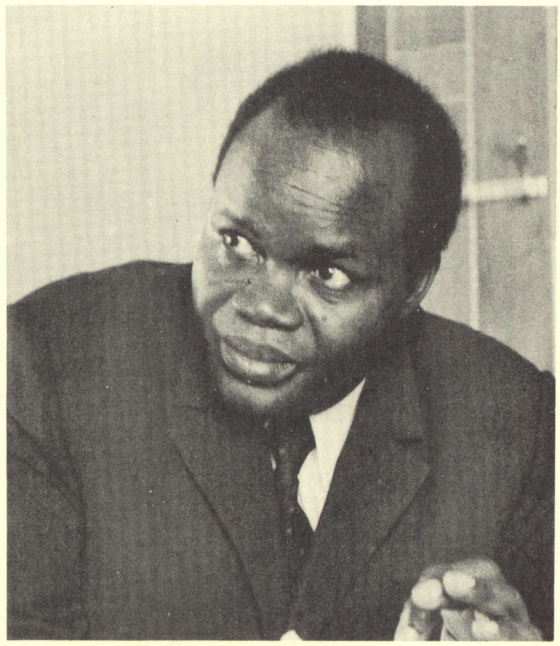
Hamburg: April 1974.
Discussion of transport difficulties between Federal Germany and the A.A.S.M.M. and methods of improving the current position. Taking part will be officials from African ports, airline companies and German forwarding agents. ■

LATEST

Drought, the drama of the Sahel

by Antoine DAKOURÉ

Just as this edition was about to go to press, we received an article by Mr Antoine Dakouré, Minister of Agriculture, Stock-breeding, Water, Forests and Tourism in Upper Volta and also Regional Coordinator of the Inter-State Committee for the fight against drought in the Sahel. In this article Mr Dakouré discusses the situation in the Sahel and refers to the main fields for action selected at the Ouagadougou Conference. In the light of lessons learned from experience he states the priority fields for aid in the future. There is no doubt that our readers will find this article, written exclusively for «Association News», extremely interesting.



So much has already been written about the drought in the Sahel that I wonder what more can be said that has not already been said in official statements, speeches, experts' reports and press articles. But as this publication can help to enlighten the public on these problems, an article by a man from the Sahel who is assisting in the fight against this disaster is perhaps not without its uses.

It was not until last March that the world suddenly became aware of this drama. The vast majority of the press radio and television endeavoured to make the world conscious of the seriousness of the situation in the Sahel. Everywhere people rushed to the assistance of our peoples who were threatened with famine. Even if most of the assistance did not arrive until two months after the alarm was raised, it helped to save thousands of human lives and to give our peoples a glimmer of hope once again.

One question that has been asked many times is why the governments concerned had not seen sufficiently far ahead to prevent such a catastrophe. And why wait so long before sounding the alarm? Research workers who have "worked" in Africa have finally found an opportunity to publish the results of their research: the trouble was foreseeable a long time in advance but, according to them, the governments were too concerned with matters other than those affecting their peoples and were therefore unable to forestall this catastrophe and take the necessary precautions in time. Those are research workers ..... They have "worked"—in their own words—in Africa. Perhaps they are not wrong, but we are still looking for suitable solutions to the problems posed by drought in the Sahel. Since the beginning of the year dozens of highly qualified specialists have scoured the whole of the Sahel area. We hope that they will not await a further catastrophe before presenting us with the results of their research work.

It must be realized that it is not easy to predict the outcome of a crop in our region. A rainy season may begin very badly and then improve, thus giving rise to a good harvest. It may also begin very well, develop normally and finish very badly. Very often all that is needed is for the final three or four rains to fall and the entire crop is endangered.

One mission which has just travelled through the six Sahel countries in order to estimate the amount of food aid which is essential next year has had to be content with two possible assumptions: the first is that of a good end to the rainy season and the second is that of no rains during the last few days. In spite of this precaution, the estimate of the deficit were found to have been considerably exceeded when the F.A.O. Conference examined the mission's conclusions. And yet these conclusions were presented on 20 October and nobody can objectively accuse the experts in this mission of incompetence or lack of foresight! It is the final rains of the season, with their unpredictable effects, which determine the size of the crop harvested. This year the final rains did not fall and in some cases, in Niger for example, attacks on crops by caterpillars increased the deficit, which had already reached quite a worrying level. The deficit rose from 850 000 metric tons in 1972 to 1 230 000 metric tons in 1973. The situation will therefore become even more serious next year if the distribution centres do not receive supplies sufficiently early.

While these urgent problems must receive all the required attention, in particular with regard to the speed and regularity of the supply of assistance, in order to save the lives of the peoples once again threatened with famine, there is no doubt that our major concern must be the establishment of a coordinated an rational programme to prevent the return of such disasters in the future.

From 23 to 27 March 1973, and from 30 August to 13 September 1973, the experts, the ministers and finally the Heads of State of the countries stricken by the drought met in Ouagadougou in order to try to find ways and means of fighting this disaster successfully. First of all they stated their determination to combine efforts in this fight. The joint programmes proposed by the national experts, approved by the ministers and adopted by the Heads of State are all hinged on a number of priorities selected for the 123 projects adopted at national and subregional level and in the field of subregional cooperation.

After defining the principal fields of action within the framework of the emergency measures for 1974, the Conference decided that priority should be given to the following fields:

In the case of projects at national level:

— implementation of programmes concerning the supply of water to villages,

agricultural land and pasture land. This will involve the rational use of all surface and underground water resources;

— the reconstitution and health protection of the herds which suffered badly during the last season;

— the improvement of secondary service tracks;

In the case of projects at subregional level: the Conference decided on:

— the construction of large dams on the main rivers in the region;

— the development of Inter-State communication systems (roads, railways, waterways);

— the setting up of a special Sahel fund to finance emergency aid operations and medium and long-term development projects;

— the implementation of a subregional seed plan to provide our peasants with seeds at the right time, in the desired quantity and with the desired quality;

— the preparation and execution of a large-scale afforestation programme to check the advance of the desert. Although the underlying causes of this drought are difficult to determine, it is an acknowledged fact that the untimely intervention of man and the excessive use of pasture land have certainly helped the spread of the desert. It is therefore imperative that afforestation work be started without delay so that nature will have a chance again.

Great stress was laid on the need for this form of cooperation. The following decisions have been adopted to serve as a concrete basis for such cooperation:

— the setting up of a Sahel Institute, whose principal task would be to carry out applied research (agronomy, protection of animal health, water and forests) and to ensure the coordination of research projects in the countries in that area;

— the setting up of a subregional applied meteorology centre;

— the setting up or reinforcement of centres for training supervisors for work in the fields of agronomy, water and forests and meteorology;

— the launching of campaigns for the promotion of human health, for the fight against epizootic diseases and for the protection of food crops.

The total cost of all of the programmes adopted at the Ouagadougou Conference is estimated at some **two hundred thousand million CFA francs.** It goes without saying that the Sahel countries are unable to provide the necessary funds from their own resources alone. It is therefore clear that we shall have to count on the help of the international community in order to carry out these programmes.

First of all, of course, we must mobilize our own resources and all our energy to get the campaign under way. But in order to maintain the enthusiasm of the masses once they have been mobilized we need equipment, means of production, and road, water supply and irrigation systems, etc. This implies money in the form of subsidies or loans with terms to suit the economic situation of the Sahel and Sudan area, which has been jeopardized by the cumulative effects of more than six consecutive years of drought.

If this assistance, which is absolutely essential for us, **is to be as effective as possible past thinking on development aid will have to be revised.**

I believe that the first consideration should be the basic aim of the aid. A senior official in an aid agency whom I met recently smiled when, during our conversation, I stressed the fact that the first aim of aid must be to satisfy the needs of the peoples who are to be helped and that these peoples were best qualified to define their own needs.

After more than twelve years of cooperation and aid we are still threatened with famine so we must draw on objective past experience in order to embark on the second decade with the due precautions.

It is surprising to discover that none of the proposals put forward in the experts' reports to help solve the problems of drought are new, but have already been advanced in reports prepared by our own departments most of them are the subject of projects that are gathering dust in drawers for the simple reason that very often the local authorities do not have the power of decision where financing is concerned.

The criteria used in order to assess the value of projects presented to the financing sources do not always take into account the priorities set by the countries that are to receive the aid.

Loans are readily granted to promote cotton-growing but loans to promote the growing of cereals are harder to come by because such projects are not profitable enough. The same applies to many infrastructure projects. People who reproach the Governments of the Sahel region for not being able to foresee the disaster are perhaps unaware of this important detail. But they certainly cannot fail to know that the Logone, the Chari, the Niger, the Volta and the Senegal did not spring from the earth with the coming of these Governments or of the drought. Projects have been prepared based on the irrigation opportunities offered by these rivers. These projects have been revised and up-dated from time to time but have never been implemented.

A number of studies have been carried out into the economic justification and the feasibility of projects of this kind and they have led to unfavourable conclusions because the dry criteria of financial profitability are prefered to any consideration of the social aspects of the projects put forward, as if it had been forgotten that it is impossible to create the motivation required in order to achieve development if man himself, the main protagonist, is not physically capable of making his own contribution.

Furthermore the partial contribution required of the recipient by certain financing sources as proof of the interest shown in the projects put forward may well be justified but it produces a paradoxical situation whereby the poorer countries, whose ability to make a financial contribution is inevitably limited, are compelled to carry out projects which are in accordance with their means, in other words small projects which have no real influence on their economy.

Fortunately there is already a favourable trend developing towards a fairer distribution of aid taking into account the pressures which are paralysing the poorer countries.

But it is certainly possible to go further. Agencies or countries which give or furnish aid must endeavour to remove all connotations of charity from their aid. For real cooperation to be achieved there must be a minimum amount of mutual confidence and if the aid-giver decides virtually by himself how these resources should be used the indispensable climate of confidence will never be created.

Now that the negotiations for the renewal of the Convention are beginning the parties concerned should take particular account of the situation in the poorer countries and work out special measures to help them. A special examination should be made of the problems created by the drought in the Sahel countries. In addition to the normal aid and special measures to help the less advanced areas, these countries should receive aid from the European Communities in order to restore their production capital, which was reduced to nothing by the cumulative effects of the drought which were particularly damaging for the principal sectors of their economy.

If the spirit which ought to prevail in future as regards aid does bear fruit we may hope that the second decade will lead to a better world; but the rich countries must agree to make the sacrifices which are needed as regards aid and trade in order to help to provide our producers with the motivation which is essential to any development action. ■

A. DAKOURÉ

Sahel:

STATEMENT BY MR CHEYSSON TO THE EUROPEAN PARLIAMENT

On 11 December 1973 Mr Cheysson, Member of the Commission with responsibility for development and cooperation, paid warm tribute to the European Parliament for the interest which it had been showing for several months in the serious problems facing a vast area of Africa and for the multiple and unremitting action which it had been undertaking in order to relieve the suffering of those peoples. The adoption of such an attitude by the Parliament was the best form of encouragement to use all its energy to fulfil its duty, especially in that part of Africa, to which we must now give all our attention.

It is well-known that droughts occur quite frequently in the Sahel, but they are usually localized. Such a generalized, death-dealing drought has occurred only three of four times in 140 years.

In order to prevent the development of those countries from being jeopardized periodically by such disasters, systematic, long-term action must be undertaken. Research must be carried out in the fields of water resources, climatic conditions, livestock health and agriculture. Measures must be taken covering supplies of water for livestock and villages (3 000 wells have been sunk up to now by the E.D.F.), irrigation systems for agriculture, animal health (cattle plague) and human health (onchocerciasis). In thirteen years the E.D.F. has already invested 75 million u.a. in such projects in the Sahelian area of six associated countries (total investments in those regions amount to some 230 million u.a.).

From now on medium and long-term projects in these six countries will be coordinated by the Inter-State Standing Committee, which was set up by the Six governments in Ouagadougou. This will facilitate the work of the Community and of the international bodies providing aid.

At present the short-term action to be taken in 1974 would appear to consist not only in continuing to supply an even larger amount of food aid but also in carrying out the most urgently needed medium and long-term structural measures, namely those which could have an immediate effect on the water and food supplies available on the spot for either human or animal consumption: reserve stocks of cereals, means of transport, improvement of desert track network, supply of water for human consumption, production of additional seeds, intensification of traditional and irrigation-assisted agriculture.

On 19 December 1972, as soon as the full extent of the disaster became clear the Community approved the dispatch of 112 000 metric tons of cereals and 13 000 metric tons of milk powder, totalling 27.5 million u.a.; at the beginning of 1973 it approved emergency aid under Article 20 amounting to 19 million u.a.; that made a total of 46.5 million u.a., which rose to 58 million u.a. when the bilateral aid granted by Member States of the Community was included.

This aid was characterized by the speed with which it was provided, the flexibility of the administrative machinery (which made it possible to make purchases locally, to award contracts by mutual agreement, to finance local operational expenditure, to transport cereals to the distribution centres, to give tax rebates on livestock, to distribute seeds to the peasants, to use transport aircraft and to make an emergency transfer of funds from one Chapter to another; another feature was the close coordination with other bodies providing aid, with the E.D.F. resident supervisors playing a vital role.

As a result of recent decisions—cereals: 130 000 metric tons; milk powder: 14 000 metric tons; butteroil: 6 000 metric tons—the amount of food aid to be provided in 1974, including that granted to Ethiopia, will be 43.4 million u.a. (compared with 27.5 million u.a. in 1973). If the 40 million u.a. granted in the Community budget is added to the 43.4 million u.a., total aid to be provided in 1974 will be 83.5 million u.a. If the bilateral aid provided by the Member Governments is also added, **the total is approximately 100 million u.a.** That is our answer. That is the meaning of solidarity and of association.

But, this is a world-wide problem. Your resolution (point 15) contains a very wise recommendation in that it asks that the world food situation be examined as a whole. Our world programme for 1974 amounts to 221 million u.a., which, with the 40 million u.a. approved yesterday, gives a total of 261 million u.a. (313 million u.a. if the aid provided by the Member States is included). It should be noted that the 261 million u.a. provided by the Community represent 4.7% of its budget—more than the amount provided by the E.D.F. in a full year. So this is really development aid on a world-wide scale!

But is it sufficient? This is doubtful if the problems of population growth, urbanization, the green revolution and the constant increase in needs are considered. According to F.A.O. calculations, the total food imports required by the Third World will rise from – 4 100 to 7 000 million between 1970 and 1980. The amount which will be covered by normal commercial imports will rise from $ 3 100 to approximately $ 4 300–4 800 million. This means that the needs to be covered by free food aid will rise from $ 1 000 to 2 200-2 700 million.

Can Europe remain indifferent to such a situation? This poses for us all the problem of a world food aid programme which measures up to our responsibilities and our role. And it poses the other problem, which is just as crucial, that of the stability of export earnings from primary products.

IMPORTANT DECISIONS
TAKEN BY THE COUNCIL OF THE EUROPEAN COMMUNITIES

Prominent among the decisions taken by the Council in the context of the Community Budget for 1974 is an appropriation of 35 million UA for aid to the peoples of the Sahel countries and Ethiopia who are hard hit by drought.

This aid, whose inclusion in the Communities' budget was requested by the European Parliament, should enable structural projects to be undertaken in the countries affected by the drought, particularly:

— the improvement of village water supplies by the drilling of new wells and the upkeep and deepening of existing wells;

— small rural engineering works to retain water;

— specific aids to develop the cultivation of certain food-crops;

— government grain stocks for 6 million people for three months;

— stockpiling of cattle feed;

— health measures for calves and lambs.

This aid, which is in addition to the aid to the countries already associated with the Community under Article 20 of the Second Yaoundé Convention, and to the bilateral action agreed to by the Member States, has proved necessary because the situation of the Sahel countries is worse today than it was a year ago. Because of the lack or uneven distribution of rainfall, harvests have been very bad and the grain intended for sowing has been used to feed people.

Thanks to this aid, urgent measures may be initiated immediately, before the rainy season, to lay in food stocks for the people and re-establish the productive apparatus of agriculture and stock farming in the disaster areas.

This exceptional initiative that the Council has just endorsed was first discussed in the Joint Committee of the Parliamentary Conference of the E.E.C.-A.A.M.S. Association, meeting at Lome (Togo) at the end of October, and then in the European Parliament after a survey of the Sahel countries by a number of members of the European Parliament.

In addition to this sum of 35 million UA there is a sum of 5 million UA to cover the cost of equipment and fuel and the costs of managing cereal stocks in the Sahel countries, including Ethiopia.

Water and livestock development in the Sahel

by A.H. ROBINET
Veterinary surgeon (*)

In this area so reputedly arid, water is not always such a rarity as people have tried to make out; and the period of drought which has prevailed for the past 5 years, and is a characteristic of the climatological cycle, has shown that the more dramatic consequences for the herds and herdsmen could be attributed as frequently to the lack of pastures as to the lack of water, though the two requirements are obviously closely linked physiologically.

Some of the countries would have been able to limit the damage by action taken in advance to secure a better balance between cattle movements, water points and the distribution of the herds at any particular time.

There can be no doubt that the present position has made people more keenly aware of these problems; but the general context in which they are seen is one which has never before occurred on this scale.

As things stand, water supply, pasture, health, education, income distribution and taxation are, in the first instance, questions of administrative and technical responsibility, correctly assessed and handled before the ultimate decisions are left to individual initiative.

This note discusses water problems in connection with the development of animal production. Its sole object is to define certain fundamental data, some of which are recent and relate both to water requirements and to the policy of hydraulic pastoral development.

* * *

Chemical aspects

Organic matter is exclusively of mineral origin. In the last resort the feeding of animals originates in the vegetable kingdom; and it is thus to the simplest of the mineral products that the chain must be traced back to find the elements of which our soils are made up and thus the sources of animal and vegetable production.

The great reservoir of water vapour and carbonic acid gas is the atmosphere; and it is from this that plants take their hydrogen, their oxygen and their carbon.

Other major constituents are derived from mineral salts, many of which are directly soluble in water.

Physiological aspects

Water is indispensable to life in every species. It is a fundamental element of metabolism and participates directly in the ecological balance, either as a physico-chemical agent of biological reactions, or as a vector for a number of substances existing in solution or in suspension.

It plays a capital part in the regulation of cellular osmosis and in the blood pressure.

As is well known, its excretion is through the kidneys, the skin and the breathing apparatus. For animals the last mentioned plays an important part, for their skin is usually less well provided with sweat glands than is the case for the human being. The regulation of heat exchanges thus occurs through changes in the rate of breathing, which is accompanied by a more or less considerable loss of water.

This means that in the sahelian and sudan areas any limitation of watering facilities will be an important limiting factor on production.

Water requirements

Apart from any allowance for effort, the recognised requirements are:

— a survival minimum; the duration varies from one species to another, and depends directly on external conditions;

— a maintenance minimum, through which the ponderal curve retains its identity, since for an animal at rest other factors remain unchanged;

— the appearance of any activity, however slight, a change in temperature or humidity, or in the water content of the food, will result in variations offsetting one another around a mean which is the characteristic usually known as the normal adult requirement;

— there are also exceptional requirements depending both on important environmental changes and more especially on metabolic activity required of the subject in connection with definite and prolonged processes (e.g. growth, gestation, lactation, traction, rapid fattening).

These will not be directly discussed here, since many of them are a current subject for research in conditions of aridity.

(*) Head of the livestock department in the Foreign Affairs State Secretariat, Paris.

Naud

Cattle drinking (Chad). In normal times Chad cattleraising is a flourishing occupation.

Normal requirements

Minimum requirements are of course inconsistent with economic stockraising. Though there is considerable variation, the orders of magnitude can be defined, depending on the race, sex and mode of treatment for the animal in average climatic conditions.

For **beef cattle** in the Sahel, the absorption of 40 litres of water is theoretically indispensable if the beasts are watered every two days. If, at the end of the dry season the only forage available to them is dry and course, they need between 50 and 60 litres.

In the wet season these requirements fall to 15 litres if they can be satisfied every day and if the distance covered in finding food does not involve movement beyond a 5 or 6 km radius.

In the coastal and Guinea area, the average requirements for young cattle are of the order of 10 litres.

In all cases the demand for water varies inversely with the humidity and atmospheric evaporation.

In a semi-intensive breeding station where the fodder of silage contains more water than dry straw or hay, the requirements are 12-15 litres for an ox and 10-12 litres for heifers, bulls and adult beeves, the activity of which is limited to finding their food which is rounded off at the trough.

Draft animals with light duties or water-drawing, for 6 or 7 hours a day with 2 hours rest, need about a 20 or 30% increase above the daily norms mentioned above. Cows, after their gestation period and during their lactation need an intake of between 20 and 25 litres a day, depending on the time of year and the area where they are located; but their ordinary maintenance requirements are 20% less than those of male cattle in the same environmental conditions.

These particulars are to be found in a table published in Mémento de l'Agronome (2nd edition, page 716). The authors also note that in the temporate zone the physical weight of the daily intake of drinking water must be:

— 4 to 5 times the dry weight of food intake for beef cattle;

— 3 or 4 times the dry weight for horses;

— 2 or 3 times the dry weight for sheep.

In the Sahel these ratios must be increased by 20 or 30%.

For adult sheep on a maintenance basis, the averages currently practised are 2 litres per day in a humid area and 3 litres in a dry area. While this is the sheep-station practice the information in free range conditions is less reliable and in the

Sahel the daily water intake certainly does not exceed between 1 and 2 litres.

Despite what people generally think, **goats** also take a daily drink whenever they have a chance. This fact has been checked at the Maradi station in Niger, and a number of other authors have made the same observation.

At Maradi the intake varies between a litre daily for male goats and 1.5 litres for females in gestation or in milk. It depends to some extent on the time of year; and the animals receive their daily food and water without having to go a long way for it.

The authors Devendra and Burns, in their work on tropical goat raising, confirm that a shortage of water is both a limiting factor in milk production and a physiological necessity for maintaining the heat regulation. Thus in Malaysia, both in free range and at a goat farm, the daily intake is about half a litre during the day and a further quarter litre during the night. Between the dry season and the wet season the variation is approximately from 1 to 3 (i.e. between 230 g and 725 g).

The same authors also emphasise the influence of the weight ratio between the dry intake and the total consumption of water, either by drinking or in the food. For goats in milk the ration between the dry and wet intake is of approximately 1 to 4. There is no precise figure applying to a dry tropical area.

For the horse the daily drink is an utter necessity. It varies between 20 and 50 litres according to the horses work, the food regime and the climate.

Last of all the camel can put up a temporary resistance against thirst and endure quite a prolonged deprivation. In a week, however, prolonged lack of water will reduce his weight by between 20 and 25 %. When he takes a drink his performance is quite impressive and may amount to 100 litres in 15 or 20 minutes, but his weight recovery is nevertheless slow.

In pastoral conditions and on a maintenance basis, the camel's consumption is around 60 litres every two days and this is increased to 80 litres when he is working. On the other hand he will make a 20-day trip across the desert on a reduced daily intake of only 30 litres. On such a régime, however, and despite the long periode of rest in the pastures, the pack camel seldom makes more than 4 or 5 "azalaï" in the course of his career.

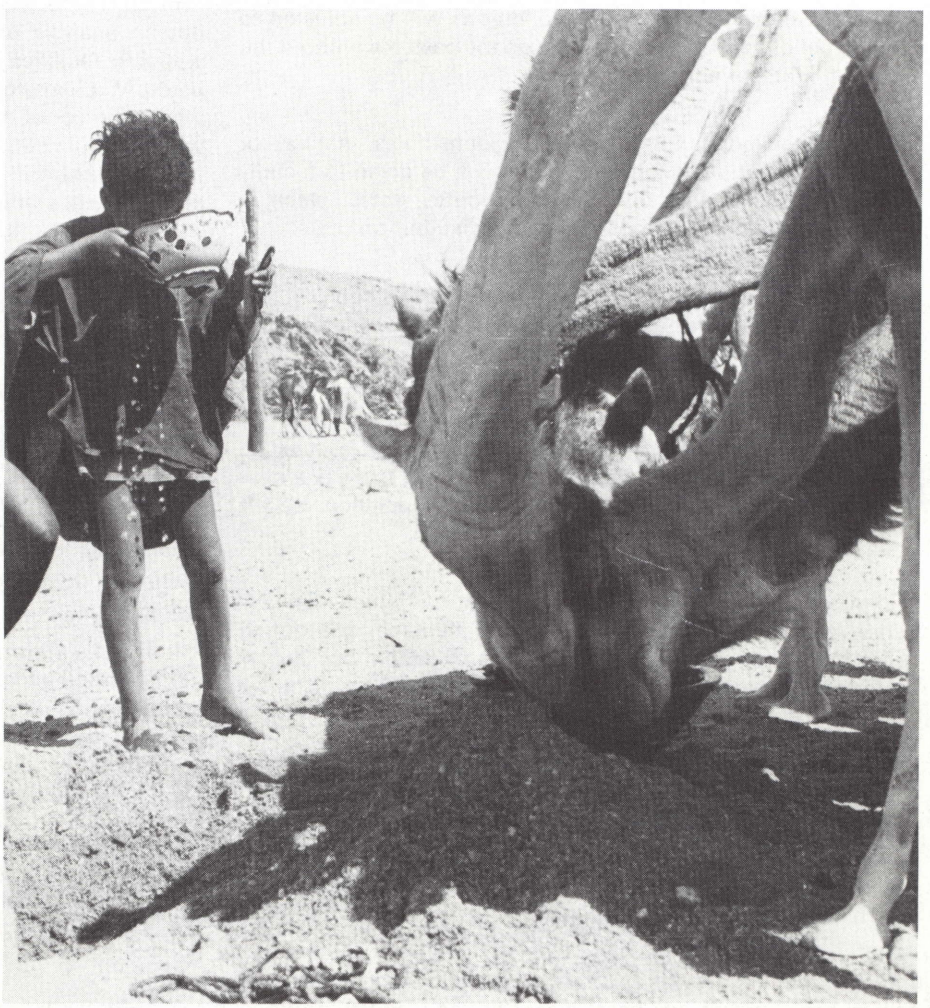
Water policy

Research

Desert encroachment, whatever be the ultimate and the accessory causes very quickly set up a number of research activities in every field. On this subject UNESCO has published an important series of basic works. In this context water dynamics in every form have been the subject of hydrometric research both on the surface and in depth; and hydro-geology has provided a better and less pessimistic knowledge about the water potential.

The works of O.R.S.T.O.M., B.R.G.M. and C.I.E.H. (1) have progressively built up an inventory which is already in a very

(1) ORSTOM: Office de la recherche scientifique et technique outre-mer, Paris
BRGM: Bureau de recherches géologiques et minières, Paris
CIEH: Comité interafricain d'études hydrauliques, Ouagadougou (Upper Volta)



Jean Guyaux

Child and camel are rivals for the little drink the well can still offer them.

advanced state of the water resources, their physical and chemical properties, the amount of reserves and the way they are fed. It is now admitted that they are still under-utilised in many cases, for economic rather than technical reasons and through lack of any reply to the fundamental question of what price shall be paid for the development of the Sahel which, of course, is not limited to the water problem.

For many experts, however, the knowledge already available in each country has still to be completed and linked up with similar information in the other countries before there can be said to exist a coherent hydrogeological survey upon which the future of the arid zone must largely depend.

The infrastructure

Attempts will be made to draw up as regularly as possible a plan of external availabilities, subject to the following basic principles:

— water volumes and pumping conditions will be adjusted to the number of beasts which can live on the pastures without the latter suffering permanent damage;

— the water points may be wells, bore-holes, natural or artificial pools or dams, but preference will be given to techniques which guarantee, by way of priority, water which is healthy and abundant without excessive distribution costs;

— the periodic closure of points where the flow is considerable is one of the measures for avoiding sterilisation of the soil, but not the only one;

— the creation of artificial pools, the deepening of temporary pools and the bringing into operation of new bore-holes must be considered with some caution, at any rate until there is a new balance between the soil and the animal population, and if possible a balance which is less precarious.

Experience shows that human intervention, which is indispensable for the better use of the land heritage, has got to begin by dealing with the consequences of a rapid but unduly sectorised development, in many cases without a solid basis for future growth.

Economics of the watering problem

We cannot hope to settle the inexhaustible controversies which are raised by this question.

Until about 1965 it was apparently agreed that water, precious as it is, both for man and beast, could not be made available to the migrant herdsmen except as a free supply, especially since they are already subject to a personal tax and a cattle tax which falls upon their instrument of production.

Little by little the problem came to be looked at as a question of survival in the abortive search for pasture, which led to a succession of losses and wastes at various operational stages.

This does not mean that nothing was done for the herdsmen. Once the generous phase of aid was over, however, there were singularly few countries in which the budgets made adequate provision for all the costs of maintenance and depreciation. This is still true in 1973 in the great majority of cases.

The problem was aggravated by technical mistakes, such as the use of treadmills and wind pumps which were unsuitable for the severe conditions of deep-level drawing in such climates. The high-yielding wells and bore-holes became a subject for bitter reflection, and for some ten years works of this kind have been virtually at a standstill.

In 1971, the Niger department for human promotion carried out an analysis of the socio-economic relationship between watering facilities in pumping stations and the movement of herds. Much interest attaches to the conclusions reached in this work. The social control of pasture utilisation is only possible with the full consent of the herdsmen who are themselves motivated in the distances they travel by the presence or absence of permanent water points with drawing facilities.

We have indeed seen herds, otherwise ill-cared for, moving off daily to the water point without any herdsman; and passing on their way over completely bare territory between the water point and the camp of the herdsmen, who had themselves become almost settled.

It need hardly be added that popular pressure runs counter to the closure of water points by act of authority, although such a decision might suffice on the short-term to restore the natural equilibrium, by liberating the approaches to the water point from having to support the cattle.

It is not surprising that the worsening of climatic conditions has led in some regions to the drama of herds dying of starvation around wells or boreholes, where the surrounding pasture within a radius of 20 km has been reduced to nothing by overgrazing and insufficient rainfall.

These water-points were set up too recently to have yet taken their place in the traditional framework, and their ownership is still an unresolved problem and a continued source of conflict between different racial and other groups.

To a lesser extent the same thing is happening about the big cemented wells of modern design; and similar events are to be

feared if the policy of providing permanent pools should come to be practised on a large scale.

In the section on modernisation, we shall suggest the criteria which might lead to better control of water resources.

Looking after the installations

For all equipment the problem of maintenance and depreciation is immediate. In exactly the same way as with the health of animals, the provision for current outgoings has to be associated with every project, and there must be a note of the solutions proposed or adopted. The requirement may perhaps seem excessive; but it is known that in some of the pumping stations the cost of a cubic metre of water is variously estimated at between 50 and 100 CFA francs, depending on whether the cost of writing off the infrastructure is or is not included.

Bearing in mind the state of extreme penury in various companies or specialised departments, there can be no a priori rejection of any request for contributions to restoring their activity and keeping their existing installations in a state of repair. It would be desirable to discuss with those bearing the technical and financial responsibility what transitional arrangements can be made for dealing properly with the question of water and its price, as part of the regional policy and pending the time when the community affected will be in a position to meet the cost.

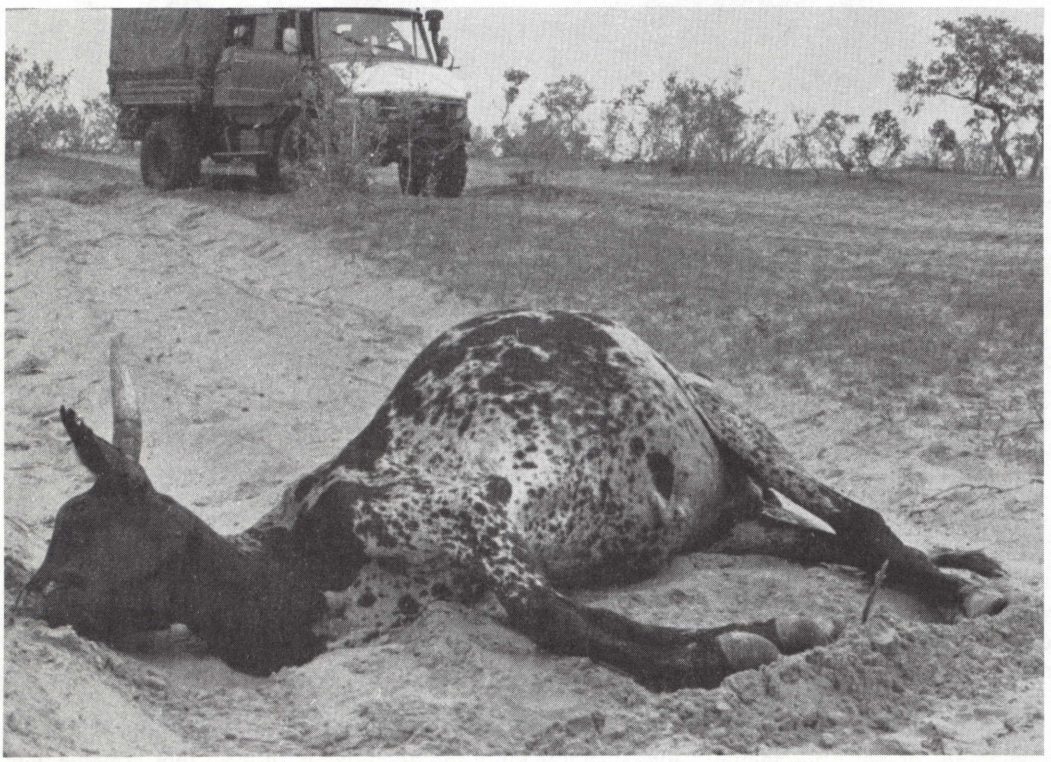
Framework for modernisation

The Sahel as a whole must be considered as a single entity, the development of which is to be carried out under identical schemes laid down for the whole area.

It is therefore desirable to set up a joint office for collecting all the essential information, especially demographic (in the widest sense) meteorological and economic; and to ask this office to see that this information becomes known. So far as concerns water, this part is already played by CIEH.

While water schemes are still a basic element in pastoral development, each of the countries should set up, as Niger has done, a special service which will make it its job at all times to provide information on the state of the food potential. The laying down of a northern limit for cultivation somewhere between the isohyetic lines 350 and 400, would ensure for each producer the legal recognition of his principal activity; and the closure of the high-yielding water points would ensure the reconstitution of the grazing around them for the following season. This closure would be temporary, or fixed on an annual rotation basis.

On the longer-term the modernisation of the Sahel depends on operating according to a soil map, showing the suitabilities of soils north of the 13th or 14th parallel depending on the country concerned.



René Haquin

Though so many people think otherwise, goats take a drink every day if they have the chance. This nanny-goat, like many others, has not had her chance.

The compiling of this map requires the superposition of three kinds of cartographic information to be taken from an exhaustive inventory of:

— subterranean and surface water with coordinates, flow and equipment;

— grazing availabilities by type and season;

— normal distribution of the known herds.

This would provide the technicians and the planners with an essential instrument for the objective assessment of the suitability of any soil for the infrastructure best adapted to its potential, and for a confident approach to such measures as climatic conditions may require, sometimes at short notice.

In practice it is not possible to separate the problem of water in an arid zone from the more general problem of regional economic development.

The essential aspects which relate to animal production, apart from the hydraulic aspect itself, are the following:

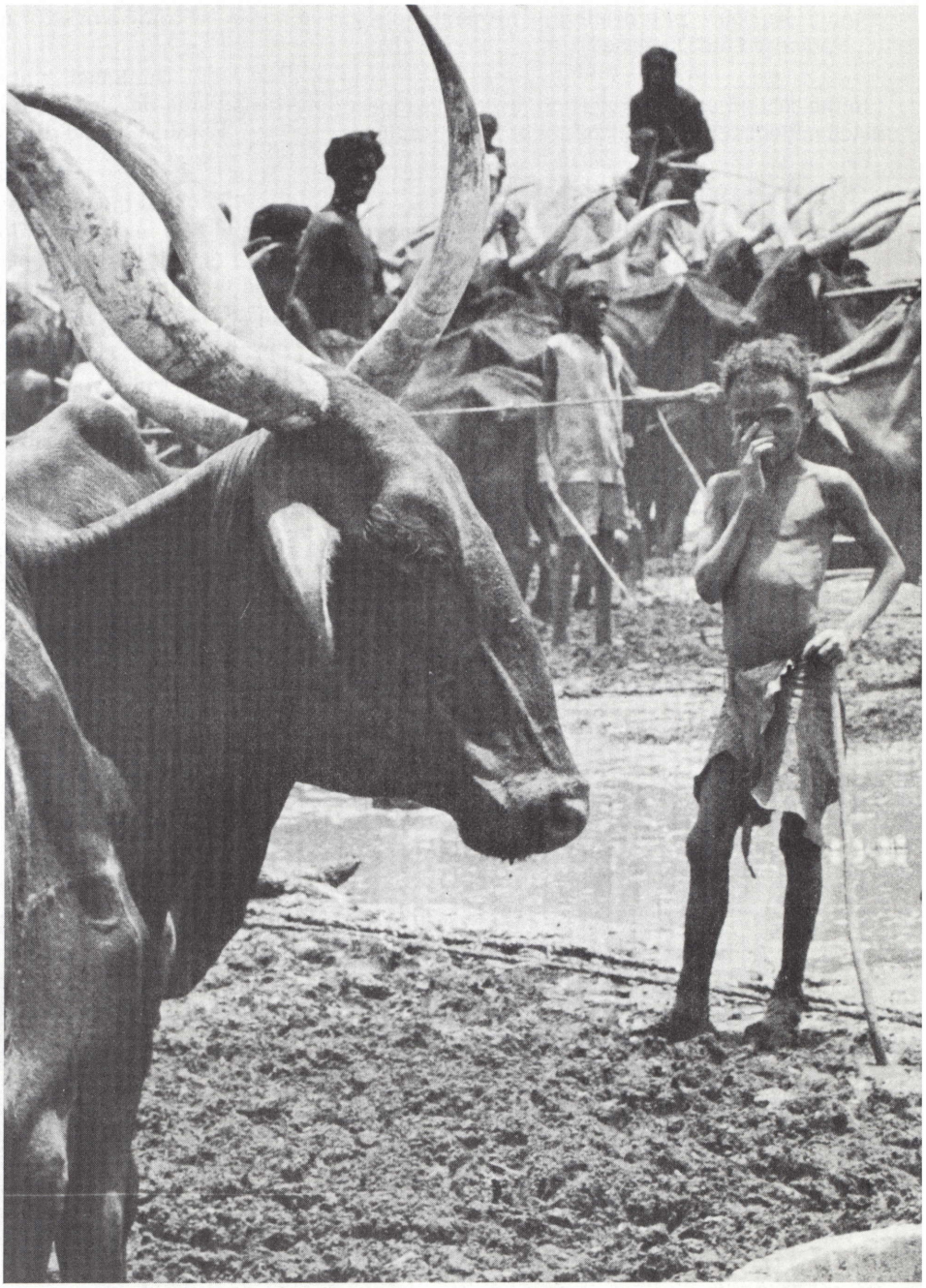
— the making of fire-barriers and the problem of maintaining them. The latter problem is in every way on a par with the maintenance of hydraulic installations.

— control and regularisation of cattle migration, especially through the periodic closure of high-flow water points.

— the quicker departure of young stock. We shall have to consider this further because it concerns the surplus male cattle and should lead to the Sahel concentrating increasingly on breeding rather than raising cattle.

It is only desirable and practicable if the reception structure (ranches, feed lots, byres and peasant pastures) can take over the beasts and bring them to the right weight for slaughter (360 to 400 kg live-weight).

What is needed therefore is a vertically integrated policy linked with the organisation of stock-raising in regions already engaged in complementary lines of agriculture in the south and with more ample grazing potential.



A parched and famished herd near what used to be a water-point.

In principle there is no major technical problem. What is necessary, however, is:

— up-country: adequate payment for the breeder, so that he does not lose his expectation of profit on the added value which would have accrued if he had kept the beast to the adult stage and faced the high mortality rate for young stock;

— in the south: a policy to integrate arable and animal farming and a far-reaching change in the farming structure in the south, since working time and soil time would necessarily be given up to the primary production of fodder units and the fattening of the stock.

So far as we are aware, few cases have yet come forward of such structure being adopted on a significant scale, but operational problems have been described and experiments are to be carried out.

An example of this type of operation on a large scale might be the development of the Volta region of the Sahel, coupled with the elimination of onchocerosis and trypanosomiases in the valley of the Voltas.

but this must be carried out as part of a general programme aimed at maintaining the balance in physico-chemical terms between the soil, the animal and the arable cultivation. The balance in question is an important limiting factor for economic development. The human population is very sparse and it will be agreed that this does not raise any immediate problem; but there has been a good deal of damage in the form of bush fires, the lopping of branches and the cutting down of trees for the sake of marginal subsistence cultivation, which have probably contributed to the aggravation of the processes now noted.

There is thus no policy for water in itself, but a complex collection of related decisions

Some of these decisions have to be taken at once when the development plan is laid down, as for example, when it is part of the decision for setting up a collective pastoral unit. Others are concerned with the choice of investments and their cost. The management cost falls to be taken into account in the working out of the operational budget, whether it be a matter of current costs or the cost of renewing the infrastructure.

Though normal economic calculations are an imperfect instrument in dealing with the development of the Sahel, recourse to this way of thinking must not be ruled out.

There are a number of social aspects, and others which are simply physiological, which will at times override the economic considerations; but the consequences of this should not be ignored, especially when it comes to the maintenance and replacement of the main installations.

The excess animal production from the north would easily find satisfactory grazing and fodder for quick fattening once the better land in the south has been developed.

* * *

CONCLUSION

The water and watering techniques need to be modernised, but this must be carried out as part of a general programme aimed at maintaining the balance in physico-chemical terms between the soil, the animal and the arable cultivation. The balance in question is an important limiting factor for economic development. The human population is very sparse and it will be agreed that this does not raise any immediate problem; but there has been a good deal of damage in the form of bush fires, the lopping of branches and the cutting down of trees for the sake of marginal subsistence cultivation, which have probably contributed to the aggravation of the processes now noted.

Last of all, the effective utilisation of the hydraulic potential cannot be considered except in relation to the protection and improvement of the food values contained in the vegetable life.

To those who may still be inclined to hesitate before the amplitude of the task and the resources which must be brought into play, the answer is that this conditions the rescue or abandonment of a herd of several billion head, and the survival of some 10 million cattle-raising population, and will create for them the material and social conditions which will bring them in their own right into modern society. ■ **A.H. ROBINET**

summarised by Lucien PAGNI

There can be no life without air and water; and hitherto these have been regarded as non-economic, unquantifiable, never in short supply but existing in unlimited quantities. This truth, obvious as it has always seemed, no longer commands the same credence. Though there is for the moment plenty of air, water has become increasingly a rarity not only because so much of it is polluted, but also because of far-reaching climatic changes. In sahelian Africa, water has become during the last 6 years more than ever a synonym of life itself.

The world's shortage of water is a new threat to mankind; and it was for this reason that a congress was held to discuss in Berlin (October 30 to November 11, 1973). It was attended by a number of experts in the economic, technical and political fields, including Mr. Hans-Dietrich Genscher, Minister for the Interior in Federal Germany and Mr. Finn-Olav Gundelach, a member of the Commission of the European Communities. Its purpose was to present a better statement of the problem and propose solutions for the difficulties created by the scarcity of water, especially in the sahel region.

The experts meeting in Berlin, like their counterpart at the discussions on Africa held in London in July 1973, gave much consideration to the disastrous drought affecting six countries in Africa (Senegal, Mauritania, Mali, Niger, Upper Volta and Chad). They were particularly concerned to find the main causes of the drought and put forward medium and long-term solutions. It seems (see Geography of a Drought, page 13) the disaster was due to changes which are more or less frequent and more or less regular in climatic conditions, coupled with the progress of destruction of vegetable growth in the regions most affected. On the question of possible solutions, there are two opposed views. The one calling for the general economic development of the Sahel to go ahead; and the second proposing the transfer of population to the more fertile regions of the countries concerned.

I accordingly asked Professor Roske to be kind enough to give us some information on these three points—the causes of the drought, the possibility of prevention and the medium and long-term solutions. The Professor is Technical Director of the Kreditanstalt für Wiederaufbau (the german State Bank for Reconstruction) in the Bundesstelle für Entwicklungsländer (B.F.E.), the Federal Office for Aid to Developing Countries in Frankfurt. In addition Mr. Kresse, also from the B.F.E., gave us interesting details for our readers about water improvements and supply works, which the B.F.E. is undertaking in developing countries.

Hydrological programmes covering big areas

Professor Roske asserts

The essential causes

Plans have got to be thought out which go well beyond the limits of national frontiers, Professor Roske declared. You asked me, he continued, what are the essential causes of the Sahel drought and the reply is, of course, quite easy—the absence of rainfall. This is a region varying between the arid and the semi-arid, and the average annual rainfall in the various countries which make up the Sahel is between 50 and 300 or 500 mm. There are, also, regions where there are no watercourses; and when the rainfall is short in such a region there is no surface water. The principal source of water supply, both for the population and for irrigating its agriculture, has thus disappeared. To this is added the fact that in the area we are considering, the water supply depends also on underground reserves; and when the rainfall is below the average for several years at a time, the level of these underground occurrences will fall and there will be difficulties in local water supplies and wells will dry up.

In your second question you asked whether it was possible to foresee the drought periods. To this I would answer that, so far as I know, this is a matter of great difficulty. The most that could be accomplished by an inspection service for the underground water, would be to supply us with a few facts. It could warn us of the probable behaviour of the water-level below ground in the early future, which would make it possible to forecast how far the underground waters could be used; and it could say when any given level of water will be reached and how far this will be affected by the lack of rainfall or whether we must wait for rainfall on a given scale. From such indications it will be possible to forecast whether the underground water level will be rising or whether the fall will continue. This, however, is on the short-term; and there is enormous difficulty in forecasting, for example, for a full year ahead, and say that any particular phenomenon will occur. Admittedly when drought has prevailed for several years at a time, various preventive measures can be taken. If, for example, the rainfall in the course of a year is below the average, measures should be taken straight away to provide for the possibility that the same thing may happen next year. Measures to curb the consumption of water should thus be brought into force when the rainfall is definitely below the average in any year, and these measures should be kept in force, even if the next year's rainfall is again adequate. It is indeed possible to take a risk on such an event, but such precautions should in any case be taken, and one should not be caught by surprise in the event of drought persisting. Admittedly this calls for a far-reaching administrative machine, for it is often extremely difficult, especially in arid countries in

A.M.K. Berlin

Opening of the Water '73 Congress in Berlin (October 30). The first item was Handel's Water Music, composed about 1717 and played by the Berlin Symphony Orchestra.

which water is the source of all life and all livelihood to order limitation on the use of water at times when the reserves available may appear sufficient. Our knowledge of meteorology and hydrology do not yet enable us to say when further periods of drought are likely to occur. Attempts at calculating the periodicity in these countries have so far been unsuccessful and it is our view that chance plays an important part.

Medium and long-term solutions

The next question you asked me was about how the sahel problem might be settled on the medium or long-term. My belief is, that in arid or semi-arid regions the aim should always be to associate the utilisation of surface water and underground water. One should seek to reach the point at which, in years of high rainfall when there is a sufficiency of surface water, the supply for domestic and agricultural use should be covered so far as possible entirely from the surface water. This would economise the use of underground water, and perhaps even allow it to increase in volume, so that we should be using the sub-soil as a tank fed from the surface drainage. In arid and semi-arid regions, there are obvious advantages in this. The soil helps to retain the underground water, and the losses by evaporation are practically nil. By contrast the storage of surface water behind dams sets up considerable evaporation losses in hot countries. In dry years, when the level of flowing water is low and more especially when the volume of water contained at the dams shows a serious diminution, it would be possible to make use of the underground water, but only in these conditions. By such a policy we should have allowed the underground reserves to increase and we should be able to use them systematically when it came to tiding over a period of water shortage. This presupposes general planning on a large scale; and it is for this reason that I think it necessary to work out an integrated plan for water utilisation covering the whole region and dealing with the use both of surface water and of underground water.

The task is assuredly a big one, when we think of the size of the region; but a systematic study would make it possible to set boundaries between the zones, and make regional studies in each of them to ascertain the amount not only of surface water, but also of underground water. This might take the form of a map or inventory of water resources and would make it possible to lay down priorities for utilisation; and the attempt should then be made, as is usual in hydrological programmes covering big areas, to work out plans which go beyond the national frontiers. Starting with knowledge of the natural resources

and ignoring the artificially created political frontiers, a real attempt should be made to create a supply potential for everybody living in these regions. The priorities would have to make allowance for natural conditions; and after they have been laid down, the next task would be to think up the projects and check them, which would mean detailed programming and financing arrangements. It has to be recognised, too, that in this region where living conditions are of so extreme a character, the provision of a hydrological infrastructure calls for considerable expenditure if living conditions are to be improved and life made generally possible in large areas of the region.

A.M.K. Berlin

At the Berlin Congress were (l. to r.) Hans D. Genscher, german Minister of the Interior; Finn-Olav Gundelach, member of the EEC Commission; and Klaus Schutz, Mayor of West Berlin. Their speeches drove home the importance of the Congress on water problems.

On the purely technical side, it would be a matter of making better use of the small resources in surface water which now exist. This means regularising the flow and perhaps creating retention lakes at the surface level; or it might be possible to consider using the underground reserves and feeding them afresh by artificial means. Since the carrying out of these works has been planned from the technical standpoint, it is certain that they are also technically possible over very big areas. On the other hand, the programme so far is purely hydrological; and it must certainly be associated with regional planning for the various areas. Living conditions in these areas depend not only on water, but also on the economic potential of the people who live there; and bearing in mind the natural conditions, this potential is very limited. The raising of livestock, which is one of the chief sources of income to the population, must be made materially more remunerative. The production is very important on the international scale because of the shortage of proteins. All this, however, implies improvement in means of communication and, in general, in the infrastructure needed for trade. All these measures must find their place in the regional plan; and this is why, quite apart from the hydrological projects, others dealing with different infrastructural aspects must also be brought to execution, both in the social infrastructure and in the economic infrastructure.

In the present state of our knowledge, of course, there would be limits to the capacity of this regional planning and to the economic potential of the people in the regions concerned. In the long run, there would inevitably be political repercussions if at any point in the world the capacity of a region to provide for the development of the human being should be suddenly limited by natural conditions. The question arises as to whether it is possible to prevent these regions from being exposed to over-population. The understanding of this problem in these regions would be the better for the fact that in present economic conditions, some areas have already gone beyond the limit of their capacities for specific economic activities, such as the raising of cattle. In this case, in the Sahel, we have encountered the problem of the exhaustion of pastures by unduly large herds; and we know that, with natural conditions as they are, there are regions in which it is no longer possible to graze as many cattle as people would wish. There must, therefore, be regulation of the pastoral industry. Cattle production must be planned, so that it becomes possible to eliminate the regional difficulties which are now being experienced because of the wanton increase in the herds.

This, however, does not apply exclusively to stock-raising and may be equally true in a region saturated with any other economic activity and needs to be liberated from strangulation which implies, in practice, that there is a need for a population transfer. We are talking here, however, in terms of long-term measures to which we should not resort except when the technical possibilities for improving living conditions are definitely found to be unduly costly.

Here, in Federal Germany, a general glance at the hydrological problem shows us that what matters is not only the quantity of water but also its quality. Though there are no serious difficulties about the quantity, the problem of quality is becoming increasingly important.

PART PLAYED BY THE BUNDESSTELLE FÜR ENTWICKLUNGSLÄNDER

by Klaus J. KRESSE

Supplies of drinking water are of course a social matter. It is a question of guaranteeing the population its supplies, or at any rate making the supplies possible for them, so that they can have drinking water of good quality and in sufficient quantity. The supply calls initially for a survey of the ground, followed by further studies and the drawing up of a timetable for the work before the work itself can start. The essential part of our work consists in having these studies carried out, so that when a decision has been taken by the Federal government and the aided country, as part of the scheme for capital aid, the plans can be handed, after full examination, to the Kreditanstalt für Wiederaufbau. The placing of the contract for the construction works is often a matter for the aided country itself. Our task therefore, once the Federal government has reached a decision on any specific project, is to handle the technical execution of the programmes and the site planning.

For this purpose we use the services of experts engaged and assigned to the work under G.A.F.I., the Deutsche Förderungsgesellschaft für Entwicklungsländer or we go to consulting engineers who draw up the so-called "feasibility" plans which serve as a basis for checking the credits. When these studies have been completed the timetable for the work and the tender documents can then be drawn up with such technical help as is necessary. In the projects it is now not only a question of passing judgement on the technical and economic aspects, but consideration has also to be given to problems arising in the future organisation of the undertaking and the training of the personnel.

This principle is illustrated by a number of projects which have been carried out in Liberia and West Africa. We had a case in which our part was not limited to carrying out a study, but also included the execution of the works themselves. After the construction work, two training courses were organised, each of them lasting a year, and designed for the personnel of the firm both for the two completed water supply units and for others. At this juncture, we already knew that the "feasibility" studies had been carried out for the other facilities, so that our training programme could also train the personnel for the hydraulic unit. For the first group of hydraulic units already in existence, the training, as I have said, lasted a year and for the new ones it lasted another year. The training was of a practical character, for our task was to explain to the personnel the functioning of the pumps, the aggregates of the analyses, the system of distribution and other details in which we could use the installations which were already there. The staff concerned was required to operate the installations itself, and we had an instructor on duty to teach them the detail of their tasks. This normally leads on to the organisation of a written examination for the qualified staff.

This staff was thus trained before the beginning of the work on the plant, so that during the 1974 programme, those concerned will be able to take a direct part in the erection and installation. Each of them already knows his job in carrying out the work, and he knows the detail of how problems may arise and how one can set about solving them. When these units are functioning, the staff we have trained will probably receive assignments under general delivery contracts for the different supplying firms. It is also possible that we shall continue to keep the staff under observation for 6 months or a year as a kind of after-the-event assistance. Some degree of aid—technical, personal and organisational—will thus be provided during the initial phase for a new plant unit. This phase normally lasts about a year.

We have also put similar schemes on foot in other countries. Apart from the technical work, we have put the accent on the management and organisational aspects of the hydraulic firms and on staff questions. The same thing applies in Burundi. In Niger we have already started with these measures; and it may be supposed that other countries where similar studies and projects have already been brought into execution, will associate themselves with measures of the same type. We attach much importance to this kind of training being given exclusively in the country itself—i.e. on the spot in the existing plant, or as part of a special training programme in the country.

An integrated plan on the same lines has been brought into operation in Nigeria. This again is part of a scheme for capital aid, in which money has been provided for setting up a plant. As part of a technical aid programme, staff have been sent out for the top management work, and now for looking after the firm and seeing to the training of the personnel. For the new unit a foreman sent out by us has also been engaged, and he will carry on with the training of the personnel working in the new unit under a programme scheduled to last about a year. It has been found that the sending out of assembly and erection staff by the supplying firms, usually for an assignment of between a month and 3 months, has not sufficed for tackling all the problems and all the difficulties which may arise with these particular units. This is where the training programme can prove extremely important. After all, the really important thing is that the plant should function continuously and be able at all times to provide the right quality and quantity of water supplies to the population; and that the native personnel should know and understand the installation and be able to discharge its task. Integrated projects on these lines have been carried through in Niger and Burundi. In various West African countries the staff adaptation problem now no longer arises. It should be recalled that in the Ivory Coast and Cameroon the organisations responsible for existing undertakings—most of them are holding companies—trained the staff themselves with the help of french firms, so that our task was limited to carrying out the plans and studies compiled by consulting engineers and the following through of documents on the planning of the work and the tender documents.

This has doubtless been one of our mistakes in development, and especially industrial development, yet we have always looked for quantities of water, and passed over the question of quality. As a result, we were suddenly brought face to face a little while ago with quite a new problem. Doubtless we are still in a position to deal with the quantity problem, but the solutions are becoming more and more expensive because, at the same time, we have to deal with the problems of quality, which are more difficult. It is in this that the present congress may have a part to play, through coordination in the execution of all hydrological projects which means in the compiling of a map of all the water resources and a comparison of all the utilisation potential and—even though the quantity question has priority for the time being—bearing in mind the quality of the water and the maintenance of that quality, so that any modern general hydrological programme takes both factors into account. We should thus avoid the difficulties with which we are dealing in Europe, for the simple reason that we did not turn our attention to the quality of the water at the time when we should have done so. By the means I have suggested, it is possible to foresee and forestall the damage; and it is much wiser and much less expensive to foresee damage than to repair it later. ■

Interviews by
Lucien PAGNI

Through Skylab and the satellites

There may be solutions for the Sahel problems

Photographs taken by the Skylab crew and by other specialised satellites, may one day provide a basis for effective combat against drought such as that now afflicting the countries south of the Sahara.

The team of Skylab 2, which recently returned to earth after 59 days in orbit, took a number of pictures of the arid zones of West Africa. For this purpose they used multi-spectrum cameras which make it possible to detect the resources of the earth.

RESOURCES OF THE EARTH

November 11 was the blast-off date fixed for Skylab 3, which is also to take a number of photographs of the Sahara and the surrounding areas.

Work of this kind is part of the E.R.E.P. programme (Earth resources experimental package) of N.A.S.A. By these means it is possible to detect underground reserves of water, and also the degree of humidity —and therefore of fertility—at the surface of the soil.

There is not much which can be done about meteorology, according to a recent statement by Alan Bean, the commanding officer of Skylab 2; but the photographic data obtained by Skylab may be used to get the best advantage from natural resources and more especially, subterranean water reserves.

PROTECTING THE PASTURES

This line of approach was deemed extremely promising; and in the spring the manned N.A.S.A. satellite ERTS I (Earth Resources Technology Satellite) acted as a pioneer.

Infra-red photographs taken by this satellite clearly showed a pentagonal region in Niger, one of the sahel countries, where the soil is moist and covered with vegetation which contrasts with the aridity of the surrounding desert.

Two of the american scientists who had examined these films later made a trip to Niger. They ascertained that the area was a stock-raising farm where the fertility is due to barbed wire fencing which safeguards it from the invasion of neighbouring nomadic herds.

The grass is thus able to grow to maturity and produce seed before it is grazed, as can happen outside this fenced property of 125 000 hectares.

These experts came to the conclusion that the formation of similar farms fenced around with barbedwire would have a salutary effect on the ecology of the Sahara and the neighbouring Sahel. The nomads would be able to pasture their herds under supervision without impoverishing the pastures.

At a later stage the experts will submit their recommendations to the governments concerned, using the pictures taken by the Skylab astronauts and by the ERTS satellite, as well as the work they have done on the spot.

In the opinion of the experts a protective "green belt" of this kind could be formed with farms in which the graving would not continue to the detriment of the ecology. It could also, they believe, help in preventing the encroachment of the Sahara desert, which is now happening along a huge curve in its south-western areas where it is advancing at the rate of around 40 km a year.

(La Libre Belgique)

II. Examples of Community Intervention

A / Two cases for the E.D.F.

Mali: Water supplies in Tombouctou

In Mali the city of Tombouctou lies at the meeting point of the Sahel and the Sahara; and its drinking water supplies have been partly financed by the European Development Fund. Before the project in question was carried out, Tombouctou was serving a population of 10 000 with nothing but well water which came from 45 old-fashioned wells. The water came from a pool quite near the surface and there was thus a serious risk of pollution. The Mali authorities were anxious for urgent steps to be taken for Tombouctou and its population to have a proper drinking water system.

Since there was an adequate supply of underground water and electric power was available, there was no particular problem about tapping the supply, delivery, treatment and distribution.

Apart from the need for having this water supply, it was clear that the project had manifest economic advantages for the development of Tombouctou, both as a commercial centre and for tourist purposes.

Commercially Tombouctou is not the thriving centre it was five centuries ago; but it is nevertheless an important urban settlement in this land of nomadic Berber arab herdsmen in the great loop of the Niger river.

In the future tourist development in Mali, Tombouctou, with the great history which lies behind it, may well become a must for visitors to West Africa. Without a good supply of drinking water there could scarcely have been much progress with the reception facilities which are gradually being built up.

The Tombouctou installations financed by the E.D.F. are on quite a modest scale, but they are the first element and allow for the extension of the distribution system as the needs of the city grow. This first phase cost u.a. 314 000, including the sinking of up-to-date wells and a rather elementary piping system with distribution from fountain terminals.

The technical design is based on the following particulars:

— **Water catchment:** Two solutions were considered. One was that water should be taken from the river Niger itself, and the other, that it should come from the underground pool which is formed by natural filtration of Niger water. For economic reasons the second solution was preferred, since this avoided the laying of a 12-km conduit.

Two wells of a metre diameter were accordingly sunk to a maximum depth of 25 metres and each able to provide a minimum of 7.5 litres per second. This is equivalent to about 400 cu. m daily which is the estimate of foreseeable consumption. The wells were sunk between Tombouctou and the Niger about a kilometre south of the town.

— **Water tower:** The content of the water tower was fixed at 230 cu. m, plus a reserve of 120 cu. m as a fire fighting precaution. The height of the tower was worked out to provide a network pressure of 1.2 kg at the highest point.

— **Conduits:** The conduit diameters, both for the main supply and for the distribution system, were calculated to carry enough water for maximum requirements expected between now and 1990.

In the market place at Tombouctou, you must wait your turn for water.

The distribution network has a number of interconnections, but has been kept as unelaborate as possible, consistent with serving all the districts containing a substantial population. It is so designed that it can be extended without modification. The water is distributed through 21 fountain terminals equivalent to about 1 for every 500 inhabitants.

— **Electric power:** Tombouctou already has an electric power station. The project accordingly provides only for branch circuits, transformer equipment and an emergency generating unit.

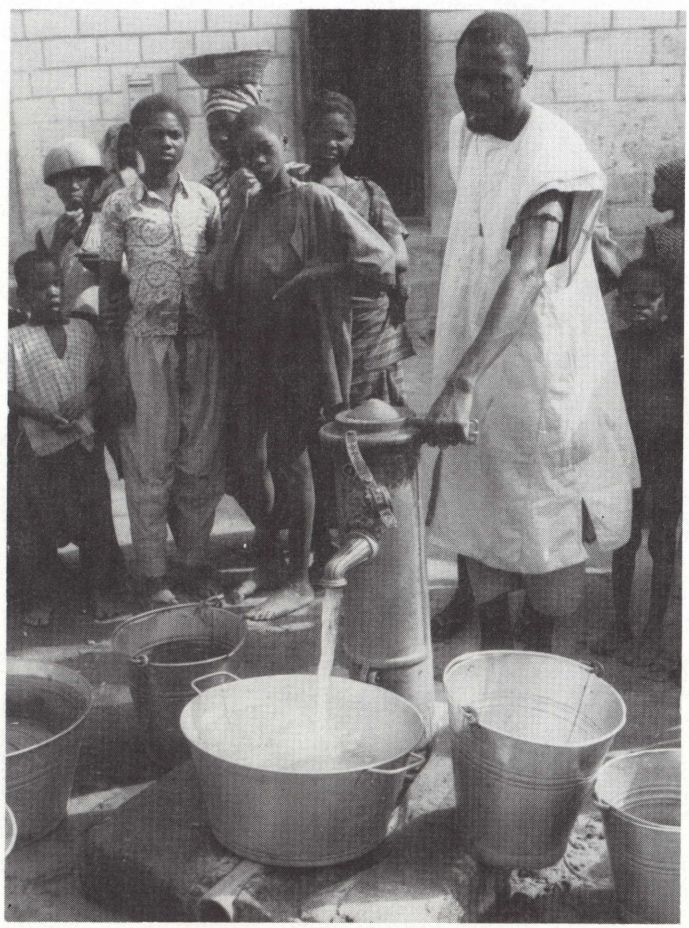
— **Water treatment:** The water from the existing wells was analysed and the treatment equipment accordingly provides only for de-acidification and chlorination. The main work and equipment thus included:

— the catchment unit;

— the reservoir, on the ground level of which is the water-treatment unit;

— housing for the maintenance personnel;

— the main conduit and distribution piping.



Fountain terminal in central Tombouctou.

The work and equipment was provisionally handed over early in 1969, but it was not fully completed until August 1973. The execution of the project can be summarised as follows:

1. Catchment installation

The catchment equipment consists of two bore-holes of 25 metres, with tubing of 300 mm internal diameter made of O.B.O. synthetic resin and bakelised compressed wood. In November 1971, through causes still undetermined, there was a soil subsidence around the bore-holes and under the shelter building; and on the side nearest Tombouctou the works collapsed. The well is therefore out of commission. Various investigations have led to the conclusion that the reconstruction of this well would cost considerably more than sinking a new one. In any case the sinking of an emergency well is provided for in the early future. The second well is in good working order, and at present it provides all the water for the town. The throughput at the pump has been reduced to 5 litres per second, so as to avoid any risk of sanding-up. In addition, the municipal authorities have taken steps to promote a limited consumption of drinking water. The single well actually in operation, is thus successfully supplying the town with water without suffering from overloading.

2. The water tower and connected buildings and equipment

a) **The water tower:** The water tower consists of a reinforced concrete reservoir of 350 cu. m, mounted on six inclined pillars to a height of 16 metres. The pillars stand on a circular slab 13 m across. The draining and overflow pipes, the drinking water connection and the connection to the fire point are through the centre of the erection into the flue of the reservoir.

b) **Housing for personnel:** The housing accommodation built close to the water tower contain 1 living room, 2 bedrooms, kitchen, toilet, shower and veranda.

c) **The control post:** The control post is built close to the operating well and consists of a single room with door and window. The building contains the following equipment:

— one general control switchboard for wells, water tower and power station;

— one anti-ram with compressor;

— one sterilisation set.

d) **The electrical supply** to all the buildings and equipment consists of: a pylon-mounted transformer; 300 metres of high-tension cable and cable connection to the local network for the control post, the water tower, the wells and the staff house.

3. Conduits and water distribution

There are about 12 km of conduit in plastic material, 21 fountain terminals, 13 fire points and various valves and vent holes of steel or cast iron. The main conduit between the wells and the water tower is 200 mm in diameter. The primary distribution conduits are of 160 mm, 110 mm and 90 mm. There are various secondary distribution lines of 63 mm diameter to the army camp, the hotel and the schools. ■

Niger: The sinking of wells

by Daniel Vincent

Niger is the country which has appropriated the biggest proportion of its Community aid to the financing of water schemes for human and pastoral purposes. From the three successive E.D.F. contributions there have been sunk 1 400 wells costing a total of 3.4 billion F-CFA. For the whole of these programmes the average depth has been 48 metres and the average cost per linear metre 50 000 F-CFA. In addition the E.D.F. financed to the extent of about 50 million F-CFA a general study for a water programme in the settle population area. This was carried out in 1965 and led to the drawing up of a priority list for hydraulic equipment for 2 000 villages in the area which had a population of over 400.

A programme of 395 wells was financed from the first E.D.F., all of them being for the southern part of the country below the 15th parallel. Of these, 270 were sunk in villages in the groundnut and millet cultivation area, including 70 permanent new villages. The remaining 125 wells were kept for pastoral water requirements. The average depth of the wells under this programme was 50 metres.

The second E.D.F. contributed to two different programmes. The first provided for the sinking of 450 wells for village use with depths ranging between 20 and 95 m, and the locations being in the BIRNI N'KONNI, DAKORO, FILINGUE MARADI, TAHOUA and NIAMEY regions At the same time some 30 wells less than 20 m deep were sunk by the people of Niger themselves. The second programme was concerned with 514 wells to an average depth of 42 m, also in villages of settled population south of the 350 mm isohyetic line. At the same time some 300 wells of no great depth were sunk manually and 200 wells in the nomadic area were given US/AID finance.

The financing from the third E.D.F.

began with a small programme of 50 wells which was part of a rural development operation in the Zinder region. Later, at the beginning of the present year, finance was provided for the continuation of earlier operations and covering the sinking of 307 wells in rural villages. The average depth will be 65 meters. This programme is now in the early stages of its execution.

An interesting point about the projects financed from the third E.D.F. is that, despite the difficulties arising from the increased depth, the work has not been put into the hands of big contracting firms as it was for the earlier programmes. The work has in fact been put in the hands of the Niger Office for sub-soil water (OFEDES) and the local populations play an effective part in the work.

OFEDES is a public body which is financially autonomous and is vested with legal personality. It was set up in 1963 and its primary task was the maintenance of wells and bore-holes in rural and pastoral areas. It gradually extended its field of activity to cover the drawing up of programmes and supervision of their execution; and later it went on to the actual execution of the work, using local manpower. As a result it has to its credit the 300 wells mentioned above.

The award to OFEDES of the new programmes for which finance is provided has the advantage of strengthening the hands of an organisation which plays a vital part in the country's organisation and of facilitating a more effective participation in the work by the local population. The result is that the people are more interested in maintaining the wells to the creation of which they have contributed.

Admittedly there are various risks inherent in using this formula for the 307 wells of the third E.D.F. project. The programme has indeed been organised on a 3-year basis, whereas a contracting firm could have completed it in 18 months or 2 years; but the production rate of a 100 wells each year is nevertheless quite high. Including other projects for which finance is contemplated, OFEDES should be sinking 200 wells per annum, which is quite a considerable performance. Moreover, it is quite certain there will be technical difficulties, for several of the wells are to go down to 65 or 75 metres.

OFEDES will supply the well-sinkers, organise supplies to the sites and supervise the carrying out of the work. The villages will supply the unskilled manpower (10 workers per well), local material (sand and gravel), accommodation for the well sinkers and storage for the cement, concrete bars and other supplies.

A special feature is, that wages are to be paid to the local manpower for work below a depth of 65 metres, which will take into account the long duration of the work in these cases. This measure is realistic and reasonable.

The experiment is ambitious; but despite the difficulties there is every hope it will be successful; and there can be no doubt that this is the solution of the future for countries which are having to deal with the water problem. With the exceptionally severe drought in the Sahel, Niger is lucky to have at its disposal a specialist service which can intervene quickly and effectively. Such organisations are indispensable to the development of individual countries, and organisations responsible for external aid would do well to encourage their formation.

So far nothing has been said about the financial aspect. This was intentional; for when it is a question of giving water to men who are thirsty, the finance problems pass into the background. It should, however, be noted that the wells sunk by contracting firms cost about 65 000 F-CFA per linear metre, whereas those sunk under the OFEDES formula are estimated at 25 000 F-CFA. We do not wish to dwell on these figures, for they are not really comparable, since the second does not cover the whole of the expenses really incurred, and the fundamental conditions are wholly different, especially on account of the fiscal treatment. This is not the aspect of the operation to which most interest attaches.

* * *

Technically the work in Niger is on normal lines. The wells are circular in section, resistant and easy to construct with the use of concrete tubes. The diameter chosen does not depend on the yield of water hoped for—in fact the diameter scarcely affects this—but rather, on the ease of construction and on the number of people who will have to be drawing water at the same time.

Since these are wells which are being sunk manually and in the ordinary way, the diameter finally selected was 1.80 metres. This enables four consumers to draw water at the same time. In the construction process two well sinkers can work together, whereas a well of 1.40 metres can only allow one. The wider diameter also makes it easier to instal the pipe for raising the water. In the execution of the 395 well projects the contracting firm concerned had originally provided for 220 wells of 140 cm diameter and 175 of 180 cm; but events on the site led the firm to substitute a number of wells of the larger diameter for the projected 140 cm wells without extra charge.

The lining of the wells consists of reinforced concrete tubes of 10 cm thickness which are brought down by undercut as the shaft goes lower. The first tube has a cutting attachment to make its descent easier.

The raising of the water is through perforated pipes which are also taken down by undercut and encased in filter material. The internal diameter of these filter pipes is 1.40 metres. They go down to a depth of 4 m into the water reservoir, corresponding to a flow of about 4 cu m per hour.

The well superstructure includes an anti-mud slab 2 m wide and a 50 cm lip. The wells for pastoral use also include 4 cattle troughs.

The water is raised in the time-honoured fashion, in a bucket on the end of a rope. Rudimentary as this may seem, it is the method preferred by those in charge in Niger, because it does not set up any need for maintenance and repairs. It must be admitted that when it comes to wells 80 m or more in depth, the lack of any system for raising the water is apt to be an exhausting matter for the user. It is to be hoped the future will see the development of lifing gear of suitable and satisfactory design and quality. ■

D. VINCENT

B / Food aid

by Patrick HOGUET

René Haquin

Diet insufficiency makes you susceptible to sicknesses (photo shows cases of measles among Touareg refugees from Mali near Niamey in Niger).

The year 1973 will certainly be remembered as disastrous for the Sahel, where the very subsistence of large parts of the population had to depend to a great extent on food supplies from outside sources owing to the damage done by the drought. In fact this food aid was an important factor.

The European Community has machinery in such circumstances for coming to the aid of any developing country; and in this case it did everything in its power to help the population of the stricken countries.

200 000 tons of produce

In 1973, the Community, in its collective capacity, will have sent the Sahel:

— 113 000 tons of cereals,

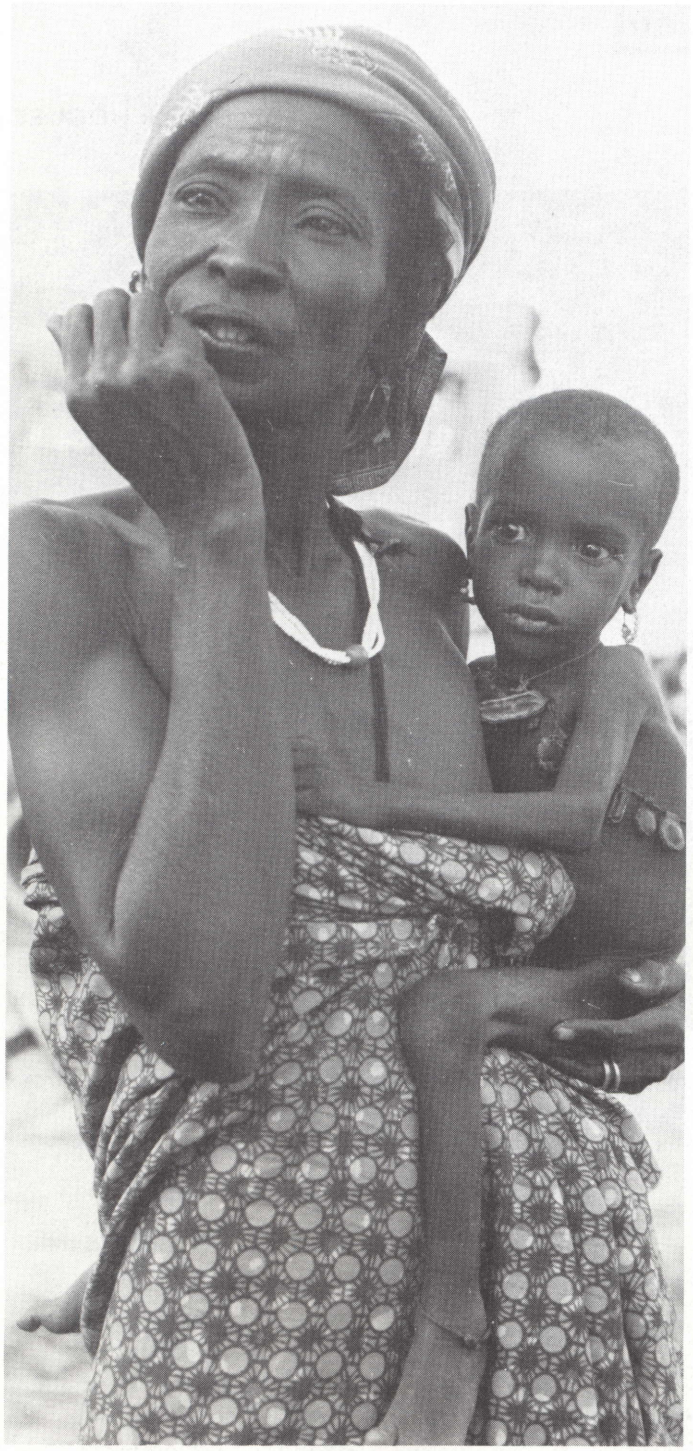
— 13 000 tons of powdered milk,

the allocation of these is as follows:

	cereals	powdered milk
	(tons)	
Upper Volta	19 000	1 800
Mali	37 000	2 100
Mauritania	5 000	1 800
Niger	14 500	2 500
Senegal	23 555	2 400
Chad	13 000 (1)	2 400
	112 055	13 000

This supply came from the European Community as such; and to it must be added the gifts which came from the individual member countries. These amounted in 1973 to about 80 000 tons of cereals and various quantities of a number of other products.

(1) Of which, 6 000 tons were delivered at the beginning of 1974.



Note the glance, and the condition, of this woman and the child she is carrying.

The supplies of about 200 000 tons of produce were the contribution of the Common Market and its nine member countries. They were of course far less than enough to cover all the needs of the Sahel; but they were, nevertheless, nearly 40 % of the total food aid which the world sent to the Sahel countries.

The main features regarding the Community action for the Sahel were the following:

1. It is often said that the decisions on food aid to the Sahel countries were a long time coming and in some cases too late. In contrast the first of the Community measures came on December 19, 1972 as soon as the authorities in some of the afflicted countries had alerted the organs of the Community on the gravity of the position and told of the most urgent needs. These decisions enabled about 45 000 tons of produce to be delivered to the Sahel in the first 6 months of 1973.

2. The Community was also aware of the formidable difficulties which must arise in transporting these hundreds of thousands of tons of food, and distributing them as quickly as possible in areas which, in many cases, were very distant. It therefore took two further sets of measures intended to help in dealing with these problems.

In the first instance it decided to meet the cost not only of the ocean shipment of the produce, but also of its carriage from the ports to its destinations up country.

Secondly, it used air transport. The first instance was the transport of the powdered milk which went both in commercial and military aircraft from Europe to Africa. This was followed by the action of the member governments, most of which put military aircraft (1) at the disposal of the african government, in some cases for several months. With these aircraft it was possible to supply areas which were difficult, or even impossible, of access during the rainy season and to take suitable action whenever particularly serious situations arose. When there were not even small landing strips available, the aircraft managed to throw sacks of provisions overboard from low altitudes and sent some of the supplies down by parachute.

3. The Community distribution plans had necessarily to be adaptable to changing circumstances and they had also to fit in with the plans made by the national authorities of the Sahel countries, within whose responsibility they lay. The Community handled this by a comparatively flexible and decentralised system. It resulted in special responsibility falling on the managing supervisers who, in most cases, were able to establish good cooperation with local representatives of other donors and thus make an effective contribution to solving the many logistic problems which arose with such short notice.

The experience of 1973, both in the aided countries and in the Community itself, will serve as guidance in the coming year, for it already seems inevitable that the 1973 effort will have to be continued.

(1) These were C 130 aircraft from Belgium, Great Britain and Italy, Transall from Germany and France, Nord Atlas from France and Fokker from the Netherlands.

The specific programme for this purpose has not yet been laid down by the official Community organs.

Whatever be the kind and quantity of produce dispatched and however it may be supplied, it is to be supposed that the improvements in the arrangements made will consist of:

— better coordination with other donor countries and organisations. An important step in this direction was the dispatch, for an investigation on the spot, of a mission consisting of representatives of F.A.O., P.A.M., US/AID, C.I.D.A., F.A.C. and the E.E.C. In consultation with the authorities in the individual countries and those in charge of the inter-State committee which has its headquarters at Ouagadougou, the members of the mission sought to identify the principal needs of the countries and of the population groups which have been most affected by the destructive effect of the drought. At the same time they made a study of the transport and storage problems which must necessarily arise afresh with the influx of further produce from the outside world;

— better programming of the dispatches. This would be partly angled on optimum utilisation (and therefore the least possible cost) of transport facilities available on the spot; and partly on the dispatch in good time—and in any case before the next rainy season to the more distant destinations—of quantities of produce which will be sufficient for the subsistence of local populations. ■

P. HOGUET

International association on a non-profit basis

C / Europe and the Third World Association

by Enzo PIRONIO

Less than six years ago, on March 25, 1968, a group of 35 officials in the institutions of the European Communities, set up the Europe and the Third World Association. They were people belonging to the various nations which are members of the European Community, but all of them shared the same thought. This was, that Europe and the Europeans needed to give proof of their solidarity with their less favoured brothers in the poorer countries. In order to give their new association a better chance of making its voice heard, they incorporated it under belgian law as an international association not seeking to make profits.

Among these 35 officials, there were a number who had for some years been working with the african countries associated with the E.E.C., especially in the management of the European Development Fund. They were well acquainted with every aspect of these countries; and with their colleages who worked with the other Community services, they decided to lay down as the object of their association, the promotion of understanding and co-operation between the citizens of european countries and those of developing countries. To this end they made it a concrete and primary objective to set up direct links with specific collective bodies in the Third World without distinction of race, religion or political opinion and to use as one of their instruments the execution of many projects for development, so as to sustain and increase their individual efforts to secure the progress of the countries concerned.

The association is open to all staff members in the European Community institutions. Many of them responded to the appeal and now there are more than a thousand of them, regularly paying their subscriptions so that the association can pursue its task. Several members of the Commission have given their distinguished patronage to the association.

* * *

During the years since the association was formed, it has held a number of information meetings to stimulate a sense of responsibility to the countries of the Third World. It has sponsored receptions, discussion meetings and sought to add to its resources by the sale of greetings cards and products of the arts and crafts of Africa, which also makes for better knowledge of the production of the countries concerned.

With the resources it has built up the association has gone into action by financing a **number of mini developments** in Africa, Asia and Latin-America. These small "ground floor" projects have been particularly concerned with rural development by the training and equipment of young farmers and improving the hydraulic infrastructure and the communications. Others, too, have been aimed at modernising the artisan crafts. All the developments financed have been aimed primarily at increasing the capacity of the people concerned to promote their own self-development. The same objective also found

"Operation Niger"

In front of the Berlaymont building before starting off. At left of photo are Mr. Weimar, Mademoiselle Tatiana Socoloff and Mr. Bettendorf.

expression in various selective schemes for technical or vocational training. The associations' committee has been kept very busy with the many projects, because it has been imperative to avoid wasting the small resources available, so that the projects had to be chosen with care and fully studied to see that they brought as much benefit as possible to the people affected. In all this work, considerable sums of money have been distributed; and they had their origin in the private resources of Common Market officials.

Then came the **Sahel drought disaster.** The association was electrified by this; and its committee hastily made a study of what could be done to avoid all the waste and duplication which always come in the wake of great calamities. The association is a private body, so that its hands are free; but it has the benefit of the personal co-operation of the E.D.F. representatives in Africa and their close knowledge of the african continent. In this way the association had exact information about conditions in the sahel countries.

It decided to give its support to the international assistance campaign in the conviction that this would be specially useful because of the information and communications available to it. Since the resources of the association do not permit of large-scale operations, and since food aid is handled by official organs in the E.E.C. and the F.A.O., it concentrated its attention on other urgent requirements among the populations affected. These included in particular, the provision of medical supplies and the distribution of aid to a population very distant from the centres. At the same time, the association was anxious to avoid duplication, and it therefore made contact with a number of non-government organisations in Community countries, so that it could exchange information with them about their respective action. This was to take definite form as a sort of co-ordination of the charitable aid outside the F.A.O. programme.

Under the medical programme, the association sent to the Sahel a first dispatch of medical supplies and authorised a collection of subscriptions among the staff of the Community institutions, so that it might proceed to further dispatches.

It was of course desirable that the medical supplies sent should really be what was needed locally. With this in view the association sought the advice of Professor Lechat of the Public Health School in the University of Louvain, who is also Director of the International Centre for Epidemiology of Disasters. It also asked the E.D.F. representatives residing in the sahel countries for information on the requirements to be noted locally. Professor Lechat sent the association a suitable analysis and the E.D.F. delegate sent in lists of medical supplies required in the different local situations.

The action taken by the association in sending help to the Sahel, not only impressed the staff of the Community institutions and made its members more keenly aware of the position, but it also impressed their official superiors, more especially the Commission, and they gave the operation their patronage. This was in parallel with their official action, in which they were using the resources of the Community itself for the necessary measures for dealing with the situation.

The action undertaken by the association for the Sahel was a complement to what was done by the F.A.O. and the E.E.C.

It was directed initially to Niger, Upper Volta, Mali, Senegal and Mauritania and more recently it has been extended to Ethiopia. It found its material expression in the dispatch of 15.5 tons of powdered milk, 5 tons of sugar, 5 tons of dried fish, 2.5 tons of baby food and quite considerable quantities of vitamins and the basic medicines needed for stamping out the epidemics which were ravaging the enfeebled victims of the drought. These deliveries represent a value of over 2 million belgian francs, to which must be added the cost of transport from Europe to Africa which was in large measure free of charge by the airline companies, the belgian Air Force and road-borne expeditions to which the association gave its support.

The local distribution of the aid dispatched was handled under the supervision of the supervising managers of the E.D.F.

The aid the association was able to give was admittedly on a small scale, for its resources are only modest; but there can be no doubt that it was extremely effective because the association was successful in organising its transfer to the places where it was most needed and at the time when it was wanted.

Because various members of the association have particularly good contacts, it was able to obtain from various manufacturing firms in Europe supplies of medicine free of charge or at special prices.

It is the aim of the association to count among its members every official and agent of the Community institutions, including the members of the European Parliament. This is a target membership of about 10 000. There will then be a good supply not only of bread, but also of hope to be distributed to our hungry brothers. ■

E. PIRONIO

III. In brief—in brief—in brief—in brief—in brief—in brief

It is not possible to list all the non-government organisations which have made a special effort to help the six afflicted countries of the Sahel, and in many cases also, have tried to think out the problem as a whole. The important thing to emphasise is the devoted solidarity so evident among these many organisations, a few of which are mentioned below by way of example.

The C.C.F.D. (Comité Catholique contre la Faim et pour le Développement)

The gifts and other payments received by the C.C.F.D. up to October 1, 1973 amounted to 2 565 380.66 FF. This was specially directed to the action against the drought, both by emergency aid and for action on the medium or the long term. Private initiative, however, necessary and however considerable it may be, can never be more than an addition to the public aid provided for these six countries.

The task is urgent, but there is also a long-term one

The C.C.F.D. does not want to limit its action to emergency help; for the drought and the distress which comes with it, will all happen again if a blow is not struck at the root causes of under-development. Even if dry weather continues to exist as one of the phenomena of nature, it should be possible to reduce its impact in the years ahead by, for example, water development and reafforestation. At the same time the local consequences could be dealt with in advance, in virtue of an agricultural policy and suitable forethought.

C.C.F.D. accordingly intends to provide 2 million FF for its 1974 appropriation for development to be spent solely on the anti-drought campaign. Of this, 862 840 FF has already been set aside for specific projects and the appropriation of the remaining 1 137 160 FF will be decided later.

Towards international solidarity

The action of C.C.F.D., and more especially its anti-drought campaign, is increasingly angled on international solidarity. To this end it is co-operating with a number of organisations in other countries, such as TROCAIRE (Ireland), DEVELOPMENT AND PEACE (Canada), the F.A.O. and the OECUMENICAL COUNCIL OF THE CHURCHES, the latter of which has taken up in toto the list of projects which were common both to C.C.F.D. and C.I.M.A.D.E. These represent about half the programme contemplated by the Oecumenical Council, which amounts to a million dollars, the organisation is also co-operating closely with the pontifical organisation "Cor Unum".

Help from french catholics—many developments and water supply

It goes without saying that big dams and important diversions of water for irrigation are on a scale which goes beyond the possibilities of mini-development.

On the other hand, such development can provide the needed skills and bring within its sphere projects on a smaller scale, such as the sinking of wells, the building of small dams and retention lakes and the improvement of irrigation canals, for which the beneficiaries (and associates) lack the skill, the will and the habit. The following are instances of the work accomplished:

— The first mini-well dates from April 1961. It was financed for and sunk by the rural training centre at Piela in the Fada N'Gourma district of Upper Volta.

— There are now **1 360 such wells in the Sahel alone**

Among the development operations of the mini-project type, which were carried out in Africa in 1960-70, hydraulic schemes represent 16 % of the total, which was about the same as was provided for agricultural equipment. In Upper Volta the hydraulic proportion was over 20 %. This is far from being negligible; and its importance is the bigger for the fact that the use to be made of water is part of the "training" provided for the housewife, which also comes among the mini-projects.

The finding of water supplies is an important factor; but no less essential is to see that full advantage is taken of it.

The well at Logna (Upper Volta) was one of the mini-projects of the French Secours Catholique.

After unloading at Dakar: sacks of wheat from the french National Federation of Agricultural Co-operatives.

The Red Cross and the Red Crescent

"There is no man, woman or child who has not had help from the Red Cross..." This remark stands at the head of a report on the rescue operation given by the League of Red Cross Societies to the populations of the sahel countries which have been victims of the drought.

The programmes of the national Red Cross and Red Crescent societies in the countries affected by the drought leave it to their governments to take responsibility for distributing the cereals put at their disposal through the United Nations (F.A.O.). Their own programmes give priority to the survival of children and to improving the sanitary conditions at the points where there are concentrations of displaced persons.

Kom over de brug (Netherlands): This organisation recently produced the equivalent of 800 million belgian francs for the Third World. It should be mentioned that the Netherlands, the public aid from which to the Third World, is among the biggest in the world, is also the country in which fund-raising campaigns addressed to the public are most apt to be successful.

National centre for co-operation and development (Belgium): this year the big public fund-raising operation named by its telephone number 11.11.11., was devoted to aid for the Sahel. It took place on October 27-28, 1973. The sahel programme, apart from emergency aid, covers a programme of structural aid which includes road-building, well-sinking, the improvement of dams and reafforestation. This programme was drawn up at the european level and in agreement with the F.A.O.

National Federation of Consumers' Co-operatives (France): this organisation, the F.N.C.C., has sent several million tons of maize to Senegal. The first aim of this operation was of course to produce immediate and effective aid to the senegalese populations affected by the drought. It was also aimed to touch the three million families which belong to the F.N.C.C. This was done through the co-operative societies and their shops.

At the same time a film on the drought in Senegal was made by Roger Louis and produced by the F.N.C.C. This film is the sixth of a series entitled "Defending Humanity", dealing with subjects of general interest. It is to be distributed in the co-operative movement and also to youth centres and cultural centres. ■

As ever, the Red Cross is always there.

DEVELOPING COUNTRY TOPICS

Lomé, October 26 to 31, 1973

Meeting of the joint committee

by Louis C.D. JOOS

For fear of being misunderstood, I have so far avoided any public confession that the african meetings of the Joint Committee of the Association Parliamentary Conference always seem to me exactly like a circus. For goodness sake read on before you start throwing stones at me. The circus, be it remembered, is a complicated organisation and very flexible, which makes it possible for a dazzling show to be put on within a few days and for a few days in all manner of places. The big top goes up, the electricity is connected, the animals are fed and the orchestra file into their places. It is a gala night; and the artists who are the kingpins of all this organisation give us sight of their daring, their skill and their strength.

It is with just the same astonished admiration that I watch the Joint Committee of the Association playing out its part in Africa. On alternate occasions one of the african countries invites the 38 members of the Committee to hold their meeting within its frontiers. In October 1973, the country concerned was Togo. A few days before the big date, down from the air came the technicians. In the magnificent Assembly Palace of the people of Togo they installed the meeting room and committee rooms, the simultaneous translation, the recording facility, the interpreters' cabins and all the other mysteries. Then came the secretaries, setting up their machines in the offices selected for them; the messengers posted six-language directions in the corridors; an infirmary was installed and equipped; a huge documentation was laid out for the parliamentarians to consult; contact was made with the local press; rulings were prepared on all the questions of protocol. At last, when all was ready in came the "artistes" the parliamentarians themselves and the session could unfold without the slightest hitch.

General E. Eyadéma, President of the Togo Republic (centre). On his right is Mr. Achenbach, chairman of the Development and Co-operation Committee of the European Parliament.

Just who are these parliamentarians and what are they up to? To answer this we must plunge into the jungle of a needlessly difficult terminology, which obscures more facts than it lays bare. Let us try, nevertheless, to understand. The Association fitted itself out with a parliament. though admittedly this was only consultative. Its task is to supervise the management of the Association, which is handled by the other organs, the Council of Association, the Areopagus of Ministers and the European Commission, which is itself the manager of the European Development Fund. This Parliament, the official name of which is the Parliamentary Conference, now has 114 members. There are three from each of the nineteen Associate countries under the Yaoundé system and 57 others chosen from the European Parliament in Strasbourg. In everything to do with the Association, parity is the strict rule. Since, however, so large a parliament cannot meet with undue frequency, it has set up a mini-replica; this is the Joint Committee.

This was the body which has just been sitting at Lomé. It consists of only 38 members, one for each of the 19 Associated countries and 19 chosen from the European Parliament. The latter are not chosen on a national basis, but in proportion to the strength of the political parties in the Parliament; but care is taken, nevertheless, that there is somebody of every nationality. The nominal work for the 38 is to draw up a report saying how they think the Association is getting on and how it could be made to work better. The draft is sent forward to the full eurafrican Parliament which, when it has bestowed its approval upon it, will send it forward to the Council of Association in order that it may take inspiration from it in carrying out its task. The suggestions contained in it, nevertheless, are not obligatory.

The meeting at Lomé was of exceptional importance for several reasons. It came at a moment when negotiations are opening in Brussels for the entry into the Association of 22 further nations from the Third World, largely african

nations, but also others from the Caribbean and from the Pacific. It was, too, a moment when parliamentarians from the new member countries of the European Community—Great Britain, Ireland and Denmark—having passed through their apprenticeship in Strasbourg, had come to take part in the Joint Committee deliberations. The meeting was attended, as usual, by the good old pioneers of european parliamentary life, such as Abbé Laudrin from Brittany, former Governor Spénale of the Socialist party, the german deputies Achenbach and Aigner and the italian democrat Bersani. At Lomé, too, we saw for the first time a number of new faces, which included the picturesque danish deputy, Pei Dich, a singer by profession and a libertarian anarchist by conviction; Lord Reay, descended from the Olympus of London where, by right of birth he has his seat in the House of Lords; and Mr. Nolan, the irish deputy who claims deep-seated affinity with the africans because, he said, he is like them a former "colonial".

On the african side, too, there sat seasoned warriors side by side with the young boy scouts. Ambassador Sissoko of Mali and Vice President Kassongo Mokondji were among the former and among those most closely followed. And from among the latter there emerged the senagalese trade unionist Sueye and representatives from the newly associated Island of Mauritius.

All this produced fireworks in discussions which were animated, and at times almost violent, and punctuated by the appearance of representatives from the other organs of the Association who were grilled by the thirty-eight. Here came Mr. Christensen, President of the Council of the European Ministers; Mr. Babacar Ba, President of the Council of Association; Mr. Krohn representing the Commission. There were many speeches and much debate; and after a time the wind of parliament began to blow in a consistent direction. Though the session ran somewhat behind the timetable, everybody at last agreed on a unanimous joint declaration which must therefore become the inspiration for those who are negotiating the future Association. This text gains its full weight from the twofold eurafrican signature; but nevertheless it is still formally no more than a consultative document.

The fact which must be emphasised here is that in the great debate on the character of the future Association, all the parliamentarians present agreed in restating their views that it must be contractual (which gets rid of the "theological" dispute about reciprocity) and that so far as possible it must be the same type of association for everybody, including the parliamentary and all the other institutions. For some people these institutions were another stumbling block. The europeans and africans agreed, too, in asking that the E.D.F. should be "brought up-to-date and extended", and most of all in asking that its expenditure should be met out of the European Community's budget resources —whereas at present the Fund is made up as required, with money contributed from the budgets of the member countries in proportions calculated in accordance with a complicated formula. On this point the Associated countries were indirectly acting as advocates of a more highly integrated Europe; and this indeed was not the least noteworthy element in the Lomé discussions. They asked, too, for a continuation of the european help for the afflicted sahel countries.

Finally, the parliamentarians issued an invitation to their colleagues from the "Associable" countries to attend their meetings as observers; and this may bring them to the next meeting, to be held in Rome next January. The idea, apparently, is that nothing makes people so anxious to work in a circus as watching a few good performances.

Moreover, these performances are not given exclusively in the committee sessions. One of the european deputies told me that he gained his best understanding of the Association from an excursion he made to Palimé. He went off with all the other deputies, all the interpreters, the secretaries, the technicians, the messengers and the rest, and attended a garden party at Klouto, where the repast they enjoyed beneath the straw shelter ended up hilariously with junket and with jink. Happily and indiscriminately, members of the Joint Committee, the entire working staff, dignatories and local population joined together in dancing to the music of the drums. There could be no better way of shaking off the complexes, and getting down to the fundamentals of an association which aims to involve people and peoples from the roots up. ■

L.C.D. JOOS

CHIEF RESOLUTION OF THE JOINT COMMITTEE AT LOMÉ

The Joint Committee of the Parliamentary Conference of the E.E.C./A.A.S.M. Association, meeting at Lomé on October 26-31, 1973,

— reaffirms the value of the co-operation instituted by the Association between the E.E.C. and the A.A.S.M., which has given proof of its effectiveness and its capacity to develop, in the face of new international situations and the needs of its partners;

— expresses its satisfaction at the fact that 41 developing countries have expressed the desire to renew the Association, or to establish, on the basis of an overall agreement, relations of co-operation with the enlarged Community, and that negotiations for this purpose have in fact begun...

— reaffirms the attitude expressed at its last meeting in Bruges, asking that the European Economic Community continue and increase its efforts on behalf of the sahel countries which are victims of the drought, and provide forthwith additional credits which will enable short-term and medium-term action to be put in hand immediately to prevent or mitigate the impact of further disasters in these countries...

Directorate General for Development and Cooperation

Activities in 1973

The work of the Directorate General for Development and Cooperation in 1973, has been concerned under a number of heads with tasks of management and of providing further impetus. It has included the current management of the Association; preparations for and initial stages of the negotiation for renewal of the Association agreements (Yaoundé, Arusha and Protocol 22 of the Treaty of Adhesion); negotiations with southern mediterranean countries, especially those of the Maghreb; initial stages of a cooperation policy on the world scale; and further measures of food aid.

MANAGEMENT OF THE ASSOCIATION (A.A.S.M.-E.E.C.)

Financial and technical cooperation

1. The year 1973 was one of full activity for the 3rd E.D.F. As of December 31, the Commission will have been required to give its decision on 79 projects, amounting to a total of u.a. 210 million, each except one of which will first have received the assent of the E.D.F. Committee at one of its eleven meetings (monthly except August).

It is the accepted principle that the whole resources of the 3rd E.D.F. must be fully committed by the end of the present period of association—i.e. by January 31, 1975. Since the first Commission decisions were not made until March 1971, this means that it must place (in its capacity as manager of the Fund) the total amount of u.a. 905 million within barely four years compared with the five years covered by the Convention of Association. This implies the entering into commitments at an annual rate of about u.a. 220 million. This was successfully done in 1971 and 1972; and the same rate was almost reached in 1973.

Up to December 31, 1973 the total commitments of the 3rd E.D.F. cover 241 projects and an amount of u.a. 650 million. Adding the latter to the Community aid disbursed through the 1st and 2nd Funds, the total comes to nearly u.a. 2 billion, which has provided finance for more than 1 000 development schemes.

Almost the whole (96%) of this aid has been provided in the form of subsidies.

2. The resources of the 3rd E.D.F. to date have been provided as to 42% for the productive sector, 38% for economic infrastructure and 16% to the social sector. The present Fund has thus been increasingly angled on the productive sector.

3. In 1973 the participation of the 3rd Fund was requested to help the six countries of the Sahel afflicted by the drought. This participation took the form of emergency aid and supplies of milk and cereals to a total amount of about u.a. 60 million. Other interventions under the same head are under consideration.

4. As in previous years the Commission has been concerned to ascertain how the projects financed by the E.D.F. are brought into execution and use. It has appeared in this connection, that obstacles may sometimes arise in the maintenance and satisfactory functioning of the investments, largely through the lack of adequate budgetary resources and trained personnel. The 3rd E.D.F. has, accordingly, been angled on the possibility, in certain cases and subject to certain conditions, of providing exceptional finance for expenditure of this type.

With the agreement of the Associated States the Commission is endeavouring to secure the Fund's participation, also, in the training of executive and technical staff, especially such staff as is required to give Community aid its full effect.

5. As in the past the E.D.F. action in 1973 has been closely coordinated with the bilateral aid given principally by Federal Germany, Belgium, France, Canada and the United States, and also with that given by the big international organisations, such as the World Bank, P.N.U.D., F.A.O., and B.A.D. This has been done by means of special meetings and regular exchanges of information. In addition many contacts have been made, both in London and in Brussels, with the British aid organisations.

Trade and Trade Promotion

The departments of the Commission concerned continued their assistance in carrying out campaigns for the marketing and sales promotion of products from the A.A.S.M. in external markets.

This included 105 participations, and their coordination, in 16 fairs or specialist exhibitions, 11 meetings with the trade, the African Fortnight in Brussels and other events.

The trade between the A.A.S.M. and the E.E.C., after its setback in 1971, showed a revival in the A.A.S.M. exports which rose from $1,641 million in 1971 to $1,716 million in 1972. The increase of about 4% is comparatively modest, which was largely due to the fact that through most of 1972 the prices of the main A.A.S.M. export products were not good. The rise in the final quarter of 1972, came too late in the year to have an appreciable effect on the year's figures. The rise continued in the early part of 1973, however, and A.A.S.M. exports showed a sustained expansion in the early part of this period.

The growth in exports from the partner countries in East Africa was still more marked in 1972 and the early months of 1973. The total rose from $100 million in 1971 to $131 million in 1972. This

indicates that the countries concerned, which have been associated with the Community only since 1971, have secured a substantial advantage in the first two years of their association.

Functioning of the institutions

The chief events were:
14th meeting of the E.E.C.-A.A.S.M. Association Council on June 15, 1973 at Fort Louis, following the entry into operation on June 1, 1973 of the agreement for the accession of Mauritius to the Yaoundé Convention.

The Association Committee met in February, May and November.

The Parliamentary Conference held its 9th annual meeting at Kinshasa (March 29-31, 1973).

RELATIONS WITH SOUTHERN MEDITERRANEAN COUNTRIES

The Maghreb countries: In the course of negotiations which took place between July and October 1973, the three Magreb delegations (from Algeria, Morocco and Tunisia), reaffirmed the desire of their countries to set up an extensive system of cooperation with the Community, based on respect for their independence and on the equality of the partners. They are seeking integrated cooperation under a global agreement, providing a lasting settlement for the problems of trade, manpower and co-operation in the economic development of their countries.

One of the problems arising in these negotiations relates to the Community offers in the agriculture sector.

For this reason the Commission has requested that various adjustments should be made in the Community offer, covering the extension of the Community preferences to certain agricultural products, especially fresh or preserved fruit and vegetables; increase in certain rates of tariff preference to offset the loss of free access to the french market; prolongation of the import seasons for preferential duties applicable to certain early fruit and vegetables.

The Commission also asked the Council to reconsider its offer for algerian wine.

In relation to manpower, the agreements would be essentially aimed to establish or guarantee effective non-discrimination between workers from the Maghreb countries and workers from Community countries.

In technical and financial cooperation, there would be provision for a series of actions, the methods of dealing with and the provision of financial cooperation have still to be laid down by Council.

On the institutional side the Association Councils will be vested with the necessary powers to see to the proper execution of the agreements, and more especially to vitalise and determine the direction of the cooperation. In addition, mixed parliamentary committees would be set up to provide democratic control over the associations.

Israel: The negotiations for a fresh agreement with Israel are aimed at bringing into existence a free trade area.

A first set of negotiations was held on July 18 and 19, 1973 and these were continued on October 1 and 2.

The Commission has informed the Council of the state of these negotiations, and of the major problems arising. The latter are concerned both with the Community offer in the agricultural sector and in relation to cooperation, and to the timetable for the removal of tariffs on industrial goods by Israel.

Egypt: The agreement between the Community and the Arab Republic of Egypt, together with the additional

protocol on account of the enlargement of the Community, came into force on November 1, 1973. This agreement is the first stage in more far-reaching relations between the Community and Egypt as part of balanced relationships with the countries in this region. Conformably to the principles laid down by the Community in its general approach, further negotiations with the Arab Republic for the adaptation of this agreement should open in the early future.

Lebanon: On November 6, 1973 the Community and Lebanon signed in Brussels an additional protocol to the agreement which had been signed on December 19, 1972. This agreement should come into effect at the beginning of 1974. Further negotiations with Lebanon should be opened with a view to the conclusion of a fresh agreement. The item most desired by Lebanon, in its relations with the Community, is the establishment of far-reaching links of technical and economic cooperation.

Jordan: On November 8 and 9, 1973, exploratory conversations took place in Brussels between the Commission and a delegation from Jordan, following the latter's request on July 3, 1972, that negotiations be opened for a preferential agreement with the Community.

On the basis of these exploratory talks, it is now for the Council to determine its attitude on Jordan's request.

COMMUNITY FOOD AID

The main features of the food aid in 1973 were, in the first instance, the considerable requests reaching the Community which, with only comparatively small quantities at its disposal, it was only able to satisfy in part; and secondly, the considerable number of cases of emergency action decided upon and duly carried out.

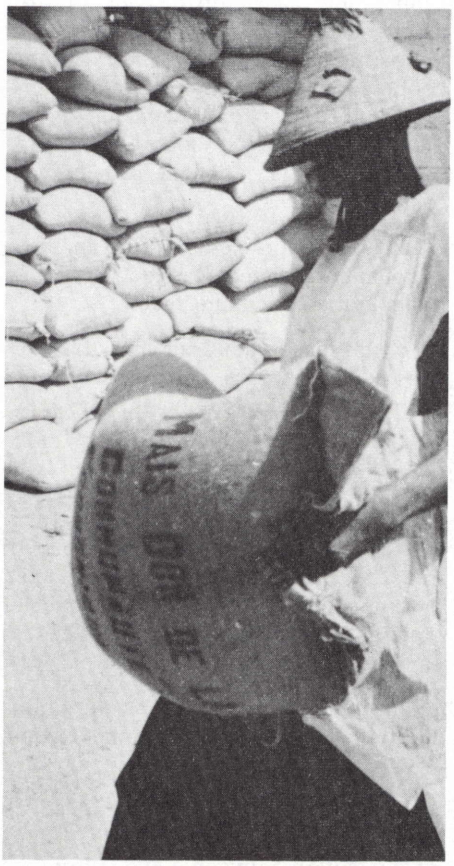
I. Emergency action

The emergency action in 1973 resulted in the delivery of 313 tons of cereal and 16 000 tons of powdered skim milk. The Community also took to its own charge the cost of transport to the aided countries and in exceptional cases, as far as the distribution centres. The emergency action was taken for the following countries:

1° **Bangladesh:** Between July and October 1973, 175 000 tons of cereals were delivered.

2° **The Associated countries of the Sahel:** The Community made a special effort to come to the aid of the Sahel countries affected by the drought, by providing them with cereals and powdered skim milk.

In addition, the Commission was the intermediary for coordinating within the Community the aid given by individual member States for the air transport of goods supplied by way of aid for the sahel countries, more especially for their transport within the countries concerned. Coordination was also established with other donors in respect of future food aid action for the same countries.



Corn distribution free of charge, a donation of the E.E.C.

3° **Ethiopia:** On October 4, 1973 the Community decided upon emergency action, comprising the supply to Ethiopia of 5 000 tons of cereals and 120 tons of powdered skim milk.

4° **Pakistan:** On October 4, 1973 the Community also decided to supply 20 000 tons of cereals and 3 000 tons of powdered skim milk to Pakistan.

II. Normal food aid

The normal Community food aid is intended to mitigate the deficit in cereals or other products in the aided countries; and generally to promote the development of these countries to the extent that the products supplied by way of gift are sold in the local market of the aided countries and the counterpart funds resulting from this are used to finance development projects.

1. Normal food aid in cereals

Malta	2 500 tons
Madagascar	5 000 tons
Zambia	5 000 tons
Egypt (Arab Republic)	13 000 tons
Indonesia	7 000 tons
Bolivia	10 000 tons
Uruguay	10 000 tons
Algeria	15 000 tons
Mauritius	12 000 tons
Jordan	5 000 tons
Syria	7 000 tons
Philippines	10 000 tons
Chili	20 000 tons
P.A.M.	5 000 tons
U.N.R.W.A.	20 000 tons
Tunisia	10 000 tons
Somalia	7 000 tons
Lebanon	5 000 tons
Sudan	5 000 tons
Sri Lanka	10 000 tons
Peru	15 000 tons
I.C.R.C.	7 500 tons

2. Normal food aid in other produce

During 1973 the Community carried out almost the whole of the 60 000 ton powdered skim milk programme laid down by the Council of Ministers on December 19, 1972. Under the programme for aid in butter oil comprising 15 000 tons, and decided upon on August 2, 1972, the deliveries scheduled

E.E.C. deliveries to Associated countries in the Sahel, 1973 (Tons)

Country	Cereals	Powdered milk
Upper Volta	19 900	1 800
Mali	37 000	2 100
Niger	14 500	1 800
Mauritania	5 000	2 500
Senegal	23 555	2 400
Chad	13 000	2 400
Total	112 955	13 000

under the P.A.M.-U.N.R.W.A. agreements (2 000 tons) have been fully completed.

The Commission has submitted to Council a proposal for the supply of 80 000 tons of powdered skim milk and 45 000 tons of butter oil.

These quantities are proposed partly, under normal food aid programmes and partly, for emergency aid to countries which will be experiencing serious food difficulties after the beginning of 1974.

III. Special action

The Community has renewed for a second year (1973/74) the convention with the United Nations Office for help to palestine refugees (U.N.R.W.A.) signed on December 18, 1972. This covers 6 000 tons of sugar, 1 868 tons of soft wheat flour, 122 tons of husked rice, 1 600 tons of powdered skim milk and 62 tons of white sugar.

It is also proposed to make a cash contribution of u.a. 1 610 000 for the purchase of various food products and to cover some of the distribution expenditure.

THE EUROPE-AFRICA NEGOTIATIONS

With a view to the negotiations scheduled to begin on August 1, 1973, by the Association conventions of Yaoundé and Arusha, and protocol 22 of the Act of Adhesion, the Commission put forward a memorandum to Council in April 1973, stating its views on the renewal and enlargement of the Association. This memorandum was the subject of much comment and one result was the decision of the "associable" countries to take part in the negotiations. In this memorandum the Commission describes what might, in its opinion, be the main characteristics of a pattern of association capable of giving general satisfaction to the requirements of all the countries concerned.

The Commission was given a mandate to carry on the negotiations in the name of the Community and of its member countries. The negotiations were prepared by two ministerial conferences, held in Brussels on July 25-26 and October 17-18, 1973. They were attended by the Community and the 43 States concerned—35 african States, 5 caribbean States and 3 pacific States.

The negotiations proper were started on October 22-23 by an organisational meeting with the Commission. The first phase will run from November 21 to December 1, 1973.

TOWARDS A GENERAL DEVELOPMENT COOPERATION POLICY

The year 1973 saw the first decisive steps in the formulation of a general Community policy in regard to developing countries as a whole.

During the past year the Directorate General played an active part in the work of the group of senior civil servants known as the "Development Cooperation Group". This was set up following the Summit meeting in Paris, with a mandate to "define the principles and objectives of a general and coherent policy of development cooperation on the world scale".

One of the basic documents in this work was the Commission memorandum of 1971 on a Community policy for development cooperation.

In this field the Community and the member countries made decisive progress in 1973. The Group included in its work a general survey of the components of a general policy for development cooperation. In doing so it followed three main lines—expansion and improvement of policies hitherto followed by the Community in regard to the Third World; coordination and harmonisation at the Community level of the national and Community cooperation policies; and the creation within the Community framework of additional instruments of financial and technical cooperation. In October the group submitted its conclusions to the Council of Ministers. On November 5 the Council met at the level of ministers responsible for cooperation and held a penetrating discussion on the Group's conclusions. It thus became possible, even at this early stage, to reach agreement on a number of questions. Among these were the essential ones relating to technical assistance in trade promotion and regional integration in countries not associated with the Community; and the harmonisation of cooperation policies between the member countries and the European Community. In other fields, though discrepant attitudes came materially closer together, it became necessary for the ministers to reexamine the papers.

MISCELLANEOUS

Stabilisation of export receipts

A project was worked out for stabilising the export receipts from basic products exported by the countries to which protocol 22 relates.

— **Cocoa.** The Community and all its member countries were signatories of the first international Agreement on cocoa.

— **Sugar.** A memorandum was put forward regarding the future sugar policy of the Community and the import of sugar from countries covered by protocol 22 (with DG VI and GD I).

— **Coffee.** The international coffee Agreement of 1968 was continued.

REPORTS

Drought conditions
and EEC Intervention

Upper Volta

Upper Volta has been suffering from the drought since 1969. In this period the department responsible for the livestock industry estimated that 20% of the cattle herds in the sahel area of Volta had perished.

Since then there has been a succession of years in which rainfall has been in a greater or less degree deficient, affecting in varying degrees the sahel area and the sudanese savannah, and also affecting the settled agricultural population. The two culminating points were the specially bad years in 1970 and 1972.

In Upper Volta the 1970 crop year was a positive disaster in a third of the country in the north-eastern region.

The drought in 1970

Following subsistence crops which had been practically non-existent, a large part of the population in the Sahel area, the Mossi and Yatenga plateaux and the Samo country found it difficult to get through the dry season in 1970-71. It was at this time that the European Communities first brought into play the instrument provided in Article 20 of the Convention Yaoundé II and intervened under several heads.

The exceptional aid in 1971 covered the transport and free distribution of 9 500 tons of cereals. In addition, for the first time in the history of the nomadic herdsmen of the Sahel, supplies of cotton-seed were left near the water points for them to feed their cattle (herd rescue project, 1971).

What had happened was, that too many animals had been using the few water points which existed, resulting in the exhaustion of the pasture in the area accessible from the water points.

A third section of the aid was for the benefit of the agricultural population to help them reestablish their economic position by subsidised supplies of fertilisers and insecticides providing them with seed.

Mr. Marc Tiémoko Garango, the Upper Volta Minister of Finance and Commerce, comes to look at the inside of one of the german Air Force machines which have brought 12 tons of powdered milk in fifty kilo bags.

The total amount of this intervention, including the E.D.F. aid and the food aid was **713 million F-CFA.**

The drought in 1972

The year 1972 produced the drought of which press reports have made the world public aware. Its effects were the worse for the fact that it came after five successive years of deficient rainfall, which had of course affected the flora and the underground water reserves.

The governments concerned had the benefit of their successful experiment in herd rescue in 1971; and as soon as the 1972 rainfall figures were known, they put preparations in hand for the dry season of 1972-73. These were concerned with **feeding the cattle;** with health **protection through a two-year vaccination** campaign against cattle pest and peripneumonia; and **financial aid to stock-raisers** by cancelling the taxes they usually paid on their cattle.

The European Development Fund covered the cost of these projects, which came into operation from mid March 1973. The aid was rounded off by **food aid** to the population, consisting of 19 900 tons of cereals and 1 800 tons of powdered milk delivered franco to the distribution centres.

The total amount of Community emergency aid and food aid to Upper Volta in 1973 was **1.6 billion F-CFA.**

To this Community aid for 1973 must be added the interventions of individual Community countries. These countries provided food aid to a total of 461 F-CFA, helped in the transport by providing aircraft and trucks, supplied pharmaceutical products and gave a considerable amount of direct finance aid, both public and private.

Recent action regarding the drought

The question might be asked as to what was done during these years to avoid similar disasters in the future and mitigate their effects?

In fact, neither the government authorities nor the E.D.F. have been idle in considering the experiences of the last

The material used under this heading is taken principally from the reports of E.D.F. general and technical supervisors in the A.A.S.M.

five years, and a number of projects have been put on foot which are enabling Upper Volta to prepare for the struggle.

One example is the **improvement of the country's access to the sea,** which is a point of capital importance for supplies from outside. There are three main routes:

— TEMA (Ghana) – OUAGADOUGOU;

— ABIDJAN (Ivory Coast) – OUAGADOUGOU (by rail);

— LOME (Togo – OUAGADOUGOU.

Among the sahel countries of the interior, Upper Volta has been the best situated for the transport of aid material.

The contribution made by the European Communities to establishing or improving these routes has been more than 20 billion F-CFA.

Another example of intervention dates back to 1962. This had to do with erosion and desert encroachment in the Yatenga, which lies in the centre-north of Upper Volta.

This was classified as a **soil conservation** project and was carried out in 1962-64. It was the first large-scale attempt to deal with the erosion problem in this part of Africa. After 1965, and up to the present time, it has been followed by a regional development scheme, which includes a **well-sinking project** as part of the work of the regional development Organisation.

The financing provided for these operations has amounted to 1.5 billion F-CFA.

Short-term prospects

Steps have already been taken to secure E.D.F. intervention in the early future as part of the drought campaign and the government authorities have put in hand the procedure to secure financing for the following projects:

— hydraulic schemes for pastoral and population purposes in the Sahel Regional Development Organisation;

— development of dams and tail waters;

— road-planning (Koupela-Fada-N'Gourma);

— improved training for technicians by setting up a technical Lycée at Ouagadougou and an inter-State school for rural engineering assistants.

T. WAFFELAERT

Unloading soft wheat (Chad).

Chad

Insufficient rainfall and its irregular occurrence have produced a state of drought in Chad which has grown worse from year to year since 1969. The drought in 1972 was particularly serious and 1973 does not seem to be any better. All the administrative districts in the Sahel have been affected in varying degrees; and some of the sudano-sahelian regions have also had disastrous crops.

The E.E.C. came promptly to the rescue in an attempt to stave off the famine among the populations. Its intervention took the following forms:

A — Food aid

1st delivery of 7 000 tons of wheat, all of which duly arrived and was distributed.
2nd delivery of 2 400 tons of powdered milk, now in course of delivery.
3rd delivery of a second consignment of 6 000 tons of wheat, due to reach Chad at about the turn of 1973-74.

B — E.D.F. finance aid — Article 20: 893 million F-CFA

1. Participation in the transport costs for the first consignment of E.E.C. wheat and the deliveries of F.A.C. wheat covering transport from Fort-Lamy to the consumption points of 12 000 tons.

The E.E.C. and the F.A.C. had originally provided only for the delivery of this first consignment of 12 000 tons of wheat as far as Fort-Lamy.

This aid amounts to 187 300 000 F-CFA. It covers road and air transport into the Chad interior, the construction of storage facilities, the supply of rolling stock and operational costs over 10 months, treatment of the cereals by fumigation and the cost of staff, travel, office expenditure and administration.

2. Reconstitution of the stock of seed: 341 200 000 F-CFA.

This aid should make it possible to provide the necessary seed to the farmers affected for their 1973 and 1974 crops. It covers the purchase of seed from the nearest available regions and using the same varieties; transport and distribution involving the purchase of transport material; and all the administrative costs of the departments concerned.

3. Health protection for livestock: 364 500 000 F-CFA.

This includes the following measures:

— immediate preventive treatment for

about 250 000 beef cattle arriving in the sudanese areas in the south. These cattle are strongly suspected of being infected by tsetse fly and carriers of trypanosomiases.

— systematic treatment of all cattle returning northwards in July-August 1973 at a line of demarkation following the road Massaguet-Ati-Abéché-Adré.

— vaccination campaign against cattle pest and peripneumonia in the southern part of the country and along the sanitary cordon affecting some 2.8 million head.

— strengthening and improvement of watering facilities involving the purchase of material and equipment and the operation of the service responsible for this work.

The carrying out of these programmes involved placing orders in other countries for veterinary products and medicines and transport material, and bringing these supplies into Chad by air.

— distribution of mixed feeds supplied by the Farcha factory. This aid relates to some 2 000 tons of highly concentrated provender of high vitamin protein and antibiotic content. It is to continue over 3 years. This action is not intended for the fattening of the stock, but as means of getting over a difficult period for young calves, cows in calf and suckling and thus safeguard the future of the Chad herds.

The delivery of the powdered milk (2 400 tons) and the second consignment of wheat (6 000 tons) was arranged with finance up to the points of distribution.

Notes on the functioning of E.E.C. aid

Chad lies in the very centre of Africa a long way from seaports and it thus has enormous difficulty in securing the quick import of food aid in sufficient quantities.

In the Chad interior, too, distances are very great and roads scarcely exist. The transport of indispensible supplies before the season of rains was a positive race against the clock.

This was taken in hand by a special organisation set up inside one of the existing Chad departments. We can only express our great satisfaction at the quick and effective work it did. Up to now it has enabled the programmes to be carried through without excessive bottlenecks or disorganisation.

With the reconstitution of the stocks of seed, the agriculture department has done everything possible to provide for the 1973 crops and is already preparing for the 1974 season.

The cattle protection, the vaccination and treatment campaigns were subject to some delay because the material could not be brought up as quickly as we had hoped. The teams handling the work, however, were able to function, and a considerable number of beasts were successfully treated.

The provender distribution to young cattle was only possible on a small scale, because the raw material in stock and the transport material available did not permit of quicker action on a big scale.

Other forms of aid

For urgent transport purposes a number of countries sent out aircraft and the most remote corners of the bush were successfully victualled by aircraft from France, Belgium, the United States, Germany, the Congo and elsewhere.

Food aid came from many countries and organisations. These included P.A.M. with 3 500 tons of sorgho; F.A.O. with 2 500 tons of sorgho; F.A.C. with 2 000 tons of sorgho; the Sudan with 1 000 tons of sorgho; the U.S.A. with 3 000 tons of sorgho; P.A.M. with 500 tons of millet; F.A.C. with 10 000 tons of wheat; Rwanda with 1 140 tons of wheat; Finland with 830 tons of wheat; P.A.M. with 500 tons of maize; F.A.C. with 3 000 tons of maize; China with 2 000 tons of maize; Canada with 2 000 tons of semolina; China with 2 000 tons of rice; F.A.O. with 123 tons of biscuits; Morocco with 597 tons and Algeria with 20 tons of miscellaneous supplies; the Red Cross with medical supplies and other supplies from W.H.O., UNICEF, the British Red Cross and many more.

All the consignments have not yet arrived; but with a rate of supply of between 3 000 and 4 000 tons per month, the aid conditions in 1974 should be appreciably better than in 1973.

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At present all the donor organisations and also the Upper Volta government are thinking about the future and laying medium-term and long-term plans which embody solutions calculated to avoid further calamities in future years.

F. GARRET

Mali

The Mali government had support from the European Economic Community in all the three fields in which it concentrated its attempt to deal with the consequences of the drought. Thus the Community:

— participated in supplying food for the affected rural and nomadic populations and the urban populations by supplying and transporting (in most cases to the distribution points) 37 000 tons of cereals and 2 100 tons of powdered milk;

— provided finance of 2 336 million Mali francs for schemes to protect or reconstitute the means of production;

— maintained the level of Mali's budget revenue by a payment into the Treasury of 1 212 million Mali francs to offset the exemption from cattle-tax which the government had granted to the stock-raisers.

In addition, following a talk with the Ministers for Production on the consequences of the drought and subject to this being a correct interpretation of the Minister's thought, it appears that certain conclusions must now be drawn. On the one hand the effects of desert encroachment are now particularly marked and this has upset for generations to come the ecological balance of the whole northern part of the Sahel. Secondly, the structural insufficiency of the national cereal production make it necessary to abandon the scheme ,which it had always been hoped would be viable. The feeding of the population in the northern part of the country must therefore depend on the crops in the south. It follows that if the considerable resources to be brought into play against the encroachment of the desert should not be as ample as is required, there will be movements of population from the north to the south. It is not suggested that these should be instigated, but they should be made easier by advanced measures to provide the reception areas with all the necessary infrastructure, more especially the hydraulic systems and a general setting angled on higher productivity in the growing of subsistence crops. ■

J. BERTRAND

BOOKS

Jomo KENYATTA. — **Au pied du mont Kenya.** — Petite collection MASPERO. — Paris (New edition 1973).

Jomo Kenyatta was born at the turn of the century. He witnessed the death of the Africa which he here describes; and devoted his life to striving for another, which should neither be a denial of the negro past nor a servile copy of Europe. He has been a militant nationalist and has known imprisonment; and now he has come to power, he is striving to build up the reality and the political unity of the nation through its special individual features. He is himself a Kikuyu, and has always kept in mind the cultural and historic tradition of his people, and this is the material for the present work. Every civilisation is linked with a specific society and its mode of life. This is what the Kenya President here describes in the first ethnological study of Africa to be made by an African. The book has become a classic and its republication in a french pocket edition bears witness to its big international readership.

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Jacques MILLEY. — **Afrique des grands lacs.** — Collection Petite Planète. — Éditions du Seuil, 1973.

The Africa of the great lakes is 2 million square kilometres of territory in the heart of central Africa, a land of sharp contrasts but unified in its geographical function as the dividing line between the Africa of the Congo basin and the eastern plateaux which come down to the Indian Ocean. The ocean itself has shaped the present coastline and set the eastward limit to the territory around the gigantic divides which have become the great lakes. While Rwanda and Burundi are turned towards the Congo and its mines, and Malawi has its eyes turned southward, there can be no doubt but what Kenya, Uganda and Tanzania, despite their many diversities, are really a geographical unit. One unity leads to another—and this is economic unity. Each country, nevertheless, must discover for itself its own identity and the path it is to follow without forsaking its tradition and its cultural heritage. When the Europeans came here Islam had already been in possession since the 8th century; and much earlier there had been the Phoenicians, the Assyrians, the Greeks, the Chinese, the Persians and the Syrians, all of whom left their imprint upon the customs, and civilisations based on agriculture, pasture and commerce. These countries as they now exist, are members of all the international bodies, but they have to make sure that their fragile sovereignty is unimpaired in the face of pressures from within and without. The present is perhaps the time when the quest for real independence is beginning.

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Julius K. NYERERE. — **Indépendance et Éducation,** translated from english by Alain Collange. — Collection "Point de Vue" Éditions CLÉ. — Yaoundé, Cameroon, 1973.

This work reproduces some of the speeches and articles of President Nyerere. In simple language, direct and to the point, he explains the philosophy of the socialist State which Tanzania desires to be, and indicates its practical everyday meaning. With its foundations in the Arusha declaration, the process of cultural revolution, which is transforming this East African country and making it independent, especially in the educational field, is a source of special interest and information for other african nations.

"This is what our system of education must encourage. It must work towards everything which, speaking in social terms, has got to be the objective—living together and working together for the common good. It must teach our young people to play a dynamic and constructive part in the development of a society in which the good or bad fortunes of the group are shared by all the members, and in which progress is measured in terms of human well-being..." This means that Tanzania's system of education must lay the emphasis on the effort to co-operate and not on individual advancement. It must put the accent on the concepts of equality and responsibility for service, which are the accompaniment of every qualification..." These are texts of capital importance and universal value which editions CLE is now bringing within reach of the french-speaking public.

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René HAQUIN. — **Sahel, la vague jaune ou le Sahara sans rivage.** — Collection "Des temps et des hommes". — Rossel édition, 1973.

René Haquin is a journalist, who has in the past contributed important material to a big belgian newspaper and has recently spent some time in the Sahel. He went especially to Niger, where he met the great nomads and also came down into the southern part of the country. His book makes lively reading and gives an eye witness account of the drought drama and its impact on human beings, cattle and the soil. He tells of the scarcity both of water and of food and often of the complete lack of both. He tells of the great number of cattle lost, of the creeping encroachment of the desert and of the southward migration of men and beasts. At the moment, international solidarity has come into play; but we must think none the less of tomorrow. Anybody who would wish to understand and take part will be keenly interested in reading this well-illustrated work.

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E. CHARPIN. — **Formation de cadres moyens en vue du développement.** — Édition du Centre d'Études Économiques et Sociales d'Afrique Occidentale. — Bobo-Dioulasso (Upper Volta), 1972.

This is a report on a large-scale enquiry among former alumni of the Centre d'Études. It was aimed at assessing the results they had secured in their various activities and tracing what part of these results was due to the basic training they had been given. The author describes successively, the aims of the Centre d'Études and of his enquiry, the methods by which the latter was carried out and the various sectors of economic life in which the former students are engaged. He ends by recapitulating the evidence of the Centre's effectiveness in the work for West African development in so important a field as training for staff jobs.

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